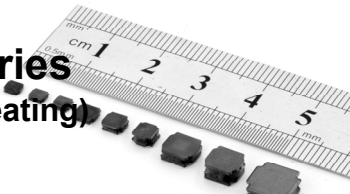


# Wire Wound SMD Power Inductors – SWPA Series

Operating temperature range: -40℃~+125℃ (Including self-heating)



## FEATURES

- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
- Metallization on ferrite core results in excellent shock resistance and damage-free durability
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- 30% higher current rating than conventional inductors of equal size
- Takes up less PCB real estate and save more power

## APPLICATIONS

- LED Lighting
- Next-generation mobile devices with multifunction such as mobile TV and digital movie cameras
- Flat-screen TVs, blue-ray disc recorders, set top box
- Notebooks, desktop computers, servers, graphic cards
- Portable gaming devices, personal navigation systems, personal multimedia devices
- Automotive systems
- Telecomm base stations

## PRODUCT IDENTIFICATION

**SWPA**

①

**3012**

②

**S**

③

**1R0**

④

**N**

⑤

**T**

⑥

| ① Type |                               |
|--------|-------------------------------|
| SWPA   | Wire Wound SMD Power Inductor |

| ③ Feature Type |          |
|----------------|----------|
| S              | Standard |

| ④ Nominal Inductance |               |
|----------------------|---------------|
| Example              | Nominal Value |
| 1R0                  | 1.0μH         |
| 100                  | 10μH          |

| ⑤ Inductance Tolerance |      |
|------------------------|------|
| M                      | ±20% |
| N                      | ±30% |

| External Dimensions (L×W×H) [mm] |             |
|----------------------------------|-------------|
| 252010                           | 2.5×2.0×1.0 |
| 252012                           | 2.5×2.0×1.2 |
| 3010                             | 3.0×3.0×1.0 |
| 3012                             | 3.0×3.0×1.2 |
| 3015                             | 3.0×3.0×1.5 |
| 4010                             | 4.0×4.0×1.0 |
| 4018                             | 4.0×4.0×1.8 |
| 4020                             | 4.0×4.0×2.0 |
| 4026                             | 4.0×4.0×2.6 |
| 4030                             | 4.0×4.0×3.0 |
| 5012                             | 5.0×5.0×1.2 |
| 5020                             | 5.0×5.0×2.0 |
| 5040                             | 5.0×5.0×4.0 |
| 6020                             | 6.0×6.0×2.0 |
| 6028                             | 6.0×6.0×2.8 |
| 6045                             | 6.0×6.0×4.5 |
| 8040                             | 8.0×8.0×4.0 |

| ⑥ Packing |                      |
|-----------|----------------------|
| T         | Tape Carrier Package |

## SHAPE AND DIMENSIONS

Fig.1

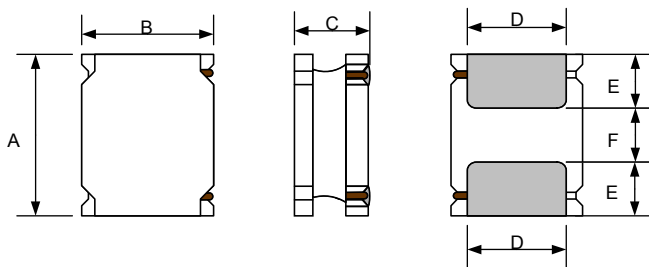


Fig.2

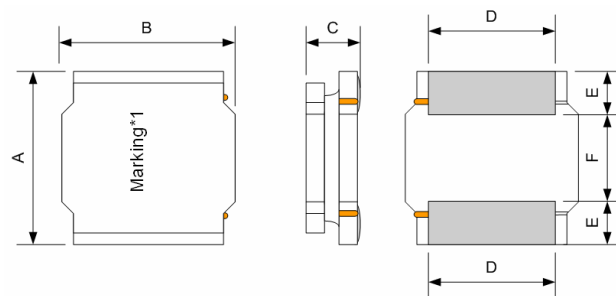
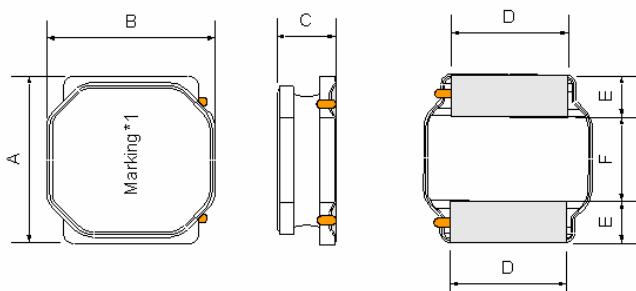
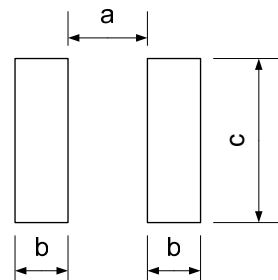


Fig.3



Recommended Land Pattern



Unit: mm

| Series      | Shape | A       | B       | C       | D       | E        | F        | a Typ. | b Typ. | c Typ. |
|-------------|-------|---------|---------|---------|---------|----------|----------|--------|--------|--------|
| SWPA252010S | Fig.1 | 2.5±0.1 | 2.0±0.1 | 1.0Max. | 1.5±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80   | 0.85   | 2.0    |
| SWPA252012S | Fig.1 | 2.5±0.1 | 2.0±0.1 | 1.2Max. | 1.5±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80   | 0.85   | 2.0    |
| SWPA3010S   | Fig.2 | 3.0±0.2 | 3.0±0.2 | 1.0Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5    | 0.8    | 2.7    |
| SWPA3012S   | Fig.2 | 3.0±0.2 | 3.0±0.2 | 1.2Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5    | 0.8    | 2.7    |
| SWPA3015S   | Fig.2 | 3.0±0.2 | 3.0±0.2 | 1.5Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5    | 0.8    | 2.7    |
| SWPA4010S   | Fig.3 | 4.0±0.2 | 4.0±0.2 | 1.0Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9    | 1.1    | 3.7    |
| SWPA4018S   | Fig.2 | 4.0±0.2 | 4.0±0.2 | 1.8Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9    | 1.1    | 3.7    |
| SWPA4020S   | Fig.2 | 4.0±0.2 | 4.0±0.2 | 2.0Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9    | 1.1    | 3.7    |
| SWPA4026S   | Fig.3 | 4.0±0.2 | 4.0±0.2 | 2.6Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9    | 1.1    | 3.7    |
| SWPA4030S   | Fig.2 | 4.0±0.2 | 4.0±0.2 | 3.0Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9    | 1.1    | 3.7    |
| SWPA5012S   | Fig.3 | 5.0±0.2 | 5.0±0.2 | 1.2Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3    | 1.4    | 4.2    |
| SWPA5020S   | Fig.3 | 5.0±0.2 | 5.0±0.2 | 2.0Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3    | 1.4    | 4.2    |
| SWPA5040S   | Fig.3 | 5.0±0.2 | 5.0±0.2 | 4.0Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3    | 1.4    | 4.2    |
| SWPA6020S   | Fig.2 | 6.0±0.3 | 6.0±0.3 | 2.0Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8    | 1.7    | 5.7    |
| SWPA6028S   | Fig.2 | 6.0±0.3 | 6.0±0.3 | 2.8Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8    | 1.7    | 5.7    |
| SWPA6045S   | Fig.2 | 6.0±0.3 | 6.0±0.3 | 4.5Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8    | 1.7    | 5.7    |
| SWPA8040S   | Fig.2 | 8.0±0.3 | 8.0±0.3 | 4.2Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3  | 3.8    | 2.2    | 7.5    |

※\*1: All products are printed with Marking except the 252010S, 252012S, 3010S, 3012S and 3015S series.

## SPECIFICATIONS

### SWPA252010S Series

| Part Number      | Inductance<br>@100kHz,1V | DC Resistance<br>(±20%) |       | Min.<br>Self-resonant<br>Frequency | Saturation Current |      | Heat Rating<br>Current |      |
|------------------|--------------------------|-------------------------|-------|------------------------------------|--------------------|------|------------------------|------|
| -                | -                        | Max.                    | Typ.  | Min.                               | Max.               | Typ. | Max.                   | Typ. |
| Units            | μH                       | Ω                       | Ω     | MHz                                | A                  | A    | A                      | A    |
| Symbol           | L                        | DCR                     |       | S.R.F                              | Isat               |      | Irms                   |      |
| SWPA252010SR47NT | 0.47±30%                 | 0.056                   | 0.047 | 202                                | 2.50               | 3.35 | 2.35                   | 2.56 |
| SWPA252010SR56NT | 0.56±30%                 | 0.072                   | 0.060 | 150                                | 2.90               | 3.20 | 2.00                   | 2.18 |
| SWPA252010SR68NT | 0.68±30%                 | 0.074                   | 0.062 | 138                                | 2.20               | 2.75 | 2.00                   | 2.18 |
| SWPA252010S1R0NT | 1.0±30%                  | 0.108                   | 0.090 | 100                                | 1.85               | 2.20 | 1.65                   | 1.80 |
| SWPA252010S1R5NT | 1.5±30%                  | 0.182                   | 0.152 | 79                                 | 1.80               | 2.10 | 1.30                   | 1.42 |
| SWPA252010S2R2NT | 2.2±30%                  | 0.209                   | 0.174 | 61                                 | 1.20               | 1.60 | 1.20                   | 1.31 |
| SWPA252010S3R3MT | 3.3±20%                  | 0.328                   | 0.273 | 48                                 | 1.05               | 1.30 | 0.90                   | 0.98 |
| SWPA252010S4R7MT | 4.7±20%                  | 0.563                   | 0.469 | 40                                 | 0.95               | 1.15 | 0.70                   | 0.76 |
| SWPA252010S5R6MT | 5.6±20%                  | 0.563                   | 0.469 | 37                                 | 0.80               | 0.95 | 0.73                   | 0.80 |
| SWPA252010S6R8MT | 6.8±20%                  | 0.896                   | 0.747 | 32                                 | 0.78               | 0.92 | 0.59                   | 0.64 |
| SWPA252010S100MT | 10±20%                   | 1.092                   | 0.910 | 26                                 | 0.65               | 0.78 | 0.50                   | 0.55 |

### SWPA252012S Series

| Part Number         | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) |       | Min.<br>Self-resonant<br>Frequency | Saturation Current |      | Heat Rating<br>Current |      |
|---------------------|--------------------------|-------------------------|-------|------------------------------------|--------------------|------|------------------------|------|
| -                   | -                        | Max.                    | Typ.  | Min.                               | Max.               | Typ. | Max.                   | Typ. |
| Units               | μH                       | Ω                       | Ω     | MHz                                | A                  | A    | A                      | A    |
| Symbol              | L                        | DCR                     |       | S.R.F                              | Isat               |      | Irms                   |      |
| SWPA252012SR47NT    | 0.47±30%                 | 0.056                   | 0.047 | 160                                | 3.82               | 4.27 | 2.15                   | 2.34 |
| SWPA252012SR68NT    | 0.68±30%                 | 0.068                   | 0.057 | 140                                | 3.28               | 3.68 | 1.95                   | 2.13 |
| SWPA252012S1R0NT    | 1.0±30%                  | 0.083                   | 0.069 | 110                                | 2.59               | 2.90 | 1.93                   | 2.10 |
| SWPA252012S1R2NT    | 1.2±30%                  | 0.119                   | 0.099 | 100                                | 2.38               | 2.67 | 1.46                   | 1.59 |
| SWPA252012S1R5MT    | 1.5±20%                  | 0.136                   | 0.113 | 97                                 | 2.24               | 2.51 | 1.4                    | 1.53 |
| SWPA252012S1R5NTY01 | 1.5±30%                  | 0.120                   | 0.100 | 63                                 | 1.80               | 2.00 | 1.45                   | 1.58 |
| SWPA252012S2R2MT    | 2.2±20%                  | 0.199                   | 0.166 | 69                                 | 1.85               | 2.07 | 1.15                   | 1.25 |
| SWPA252012S2R2NTY02 | 2.2±30%                  | 0.142                   | 0.118 | 53                                 | 1.55               | 1.75 | 1.3                    | 1.42 |
| SWPA252012S2R7MT    | 2.7±20%                  | 0.221                   | 0.184 | 63                                 | 1.72               | 1.92 | 1.09                   | 1.19 |
| SWPA252012S3R3MT    | 3.3±20%                  | 0.244                   | 0.203 | 62                                 | 1.61               | 1.80 | 1.04                   | 1.13 |
| SWPA252012S3R6MT    | 3.6±20%                  | 0.322                   | 0.268 | 53                                 | 1.46               | 1.64 | 0.9                    | 0.98 |
| SWPA252012S4R3MT    | 4.3±20%                  | 0.348                   | 0.290 | 51                                 | 1.37               | 1.53 | 0.87                   | 0.95 |
| SWPA252012S4R7MT    | 4.7±20%                  | 0.348                   | 0.290 | 47                                 | 1.12               | 1.25 | 0.84                   | 0.92 |
| SWPA252012S5R1MT    | 5.1±20%                  | 0.462                   | 0.385 | 44                                 | 1.23               | 1.37 | 0.75                   | 0.82 |
| SWPA252012S5R6MT    | 5.6±20%                  | 0.497                   | 0.414 | 38                                 | 1.11               | 1.25 | 0.73                   | 0.80 |
| SWPA252012S6R2MT    | 6.2±20%                  | 0.500                   | 0.417 | 38                                 | 1.03               | 1.16 | 0.73                   | 0.80 |
| SWPA252012S6R8MT    | 6.8±20%                  | 0.536                   | 0.447 | 38                                 | 0.98               | 1.09 | 0.69                   | 0.75 |
| SWPA252012S7R5MT    | 7.5±20%                  | 0.564                   | 0.470 | 35                                 | 0.97               | 1.09 | 0.68                   | 0.74 |
| SWPA252012S8R2MT    | 8.2±20%                  | 0.607                   | 0.506 | 36                                 | 0.98               | 1.10 | 0.65                   | 0.71 |
| SWPA252012S9R1MT    | 9.1±20%                  | 0.637                   | 0.531 | 34                                 | 0.91               | 1.02 | 0.62                   | 0.68 |
| SWPA252012S100MT    | 10±20%                   | 0.637                   | 0.531 | 34                                 | 0.79               | 0.88 | 0.62                   | 0.68 |
| SWPA252012S120MT    | 12±20%                   | 0.992                   | 0.827 | 28                                 | 0.78               | 0.88 | 0.51                   | 0.56 |
| SWPA252012S150MT    | 15±20%                   | 1.469                   | 1.224 | 25                                 | 0.68               | 0.77 | 0.42                   | 0.46 |
| SWPA252012S220MT    | 22±20%                   | 1.824                   | 1.520 | 20                                 | 0.53               | 0.59 | 0.38                   | 0.41 |

## SPECIFICATIONS

### SWPA3010S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA3010S1R0NT | 1.0±30%                  | 0.065                   | 180                                | 1.40                  | 1.45                   |
| SWPA3010S1R2NT | 1.2±30%                  | 0.065                   | 137                                | 1.25                  | 1.45                   |
| SWPA3010S1R5NT | 1.5±30%                  | 0.080                   | 120                                | 1.27                  | 1.30                   |
| SWPA3010S2R2NT | 2.2±30%                  | 0.110                   | 100                                | 1.15                  | 1.09                   |
| SWPA3010S2R7NT | 2.7±30%                  | 0.130                   | 90                                 | 1.00                  | 1.02                   |
| SWPA3010S3R3NT | 3.3±30%                  | 0.145                   | 74                                 | 0.97                  | 0.96                   |
| SWPA3010S3R6MT | 3.6±20%                  | 0.165                   | 67                                 | 0.95                  | 0.90                   |
| SWPA3010S4R7MT | 4.7±20%                  | 0.225                   | 59                                 | 0.75                  | 0.77                   |
| SWPA3010S6R8MT | 6.8±20%                  | 0.305                   | 42                                 | 0.55                  | 0.66                   |
| SWPA3010S100MT | 10±20%                   | 0.400                   | 39                                 | 0.55                  | 0.58                   |
| SWPA3010S120MT | 12±20%                   | 0.505                   | 36                                 | 0.43                  | 0.52                   |
| SWPA3010S150MT | 15±20%                   | 0.610                   | 30                                 | 0.42                  | 0.47                   |
| SWPA3010S220MT | 22±20%                   | 0.930                   | 28                                 | 0.35                  | 0.38                   |
| SWPA3010S270MT | 27±20%                   | 1.080                   | 25                                 | 0.30                  | 0.35                   |
| SWPA3010S330MT | 33±20%                   | 1.550                   | 18                                 | 0.29                  | 0.30                   |
| SWPA3010S390MT | 39±20%                   | 1.750                   | 18                                 | 0.28                  | 0.28                   |
| SWPA3010S430MT | 43±20%                   | 1.800                   | 18                                 | 0.23                  | 0.27                   |
| SWPA3010S470MT | 47±20%                   | 1.950                   | 18                                 | 0.22                  | 0.26                   |
| SWPA3010S510MT | 51±20%                   | 2.200                   | 18                                 | 0.21                  | 0.25                   |
| SWPA3010S560MT | 56±20%                   | 2.320                   | 16                                 | 0.21                  | 0.24                   |

### SWPA3012S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA3012SR82NT | 0.82±30%                 | 0.030                   | 180                                | 2.05                  | 2.47                   |
| SWPA3012S1R0NT | 1.0±30%                  | 0.040                   | 120                                | 1.87                  | 2.20                   |
| SWPA3012S1R2NT | 1.2±30%                  | 0.045                   | 120                                | 2.22                  | 2.01                   |
| SWPA3012S1R5NT | 1.5±30%                  | 0.045                   | 110                                | 1.62                  | 2.01                   |
| SWPA3012S1R8NT | 1.8±30%                  | 0.063                   | 90                                 | 1.30                  | 1.65                   |
| SWPA3012S2R2NT | 2.2±30%                  | 0.075                   | 84                                 | 1.20                  | 1.55                   |
| SWPA3012S2R4NT | 2.4±30%                  | 0.068                   | 100                                | 1.15                  | 1.60                   |
| SWPA3012S2R7NT | 2.7±30%                  | 0.085                   | 65                                 | 1.14                  | 1.48                   |
| SWPA3012S3R3MT | 3.3±20%                  | 0.100                   | 64                                 | 1.05                  | 1.36                   |
| SWPA3012S3R9MT | 3.9±20%                  | 0.145                   | 61                                 | 1.00                  | 1.24                   |
| SWPA3012S4R7MT | 4.7±20%                  | 0.120                   | 61                                 | 0.90                  | 1.24                   |
| SWPA3012S6R8MT | 6.8±20%                  | 0.190                   | 61                                 | 0.75                  | 0.98                   |
| SWPA3012S100MT | 10±20%                   | 0.265                   | 42                                 | 0.60                  | 0.83                   |
| SWPA3012S120MT | 12±20%                   | 0.345                   | 32                                 | 0.48                  | 0.73                   |
| SWPA3012S150MT | 15±20%                   | 0.360                   | 27                                 | 0.45                  | 0.71                   |
| SWPA3012S180MT | 18±20%                   | 0.545                   | 25                                 | 0.43                  | 0.58                   |
| SWPA3012S220MT | 22±20%                   | 0.645                   | 23                                 | 0.42                  | 0.53                   |
| SWPA3012S270MT | 27±20%                   | 0.870                   | 21                                 | 0.35                  | 0.47                   |
| SWPA3012S330MT | 33±20%                   | 0.875                   | 18                                 | 0.36                  | 0.46                   |
| SWPA3012S360MT | 36±20%                   | 0.950                   | 18                                 | 0.34                  | 0.44                   |

## SPECIFICATIONS

### SWPA3012S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | µH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA3012S390MT | 39±20%                    | 1.330                   | 18                                 | 0.30                  | 0.37                   |
| SWPA3012S470MT | 47±20%                    | 1.450                   | 14                                 | 0.27                  | 0.35                   |
| SWPA3012S680MT | 68±20%                    | 1.670                   | 12                                 | 0.24                  | 0.33                   |
| SWPA3012S820MT | 82±20%                    | 2.540                   | 12                                 | 0.17                  | 0.27                   |
| SWPA3012S101MT | 100±20%                   | 2.860                   | 12                                 | 0.21                  | 0.25                   |

### SWPA3015S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | µH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA3015S1R0NT | 1.0±30%                   | 0.030                   | 150                                | 2.32                  | 2.35                   |
| SWPA3015S1R2NT | 1.2±30%                   | 0.040                   | 110                                | 2.21                  | 1.95                   |
| SWPA3015S1R5NT | 1.5±30%                   | 0.050                   | 100                                | 2.30                  | 1.70                   |
| SWPA3015S1R8NT | 1.8±30%                   | 0.050                   | 92                                 | 1.75                  | 1.70                   |
| SWPA3015S2R2NT | 2.2±30%                   | 0.060                   | 86                                 | 1.60                  | 1.60                   |
| SWPA3015S2R7NT | 2.7±30%                   | 0.075                   | 64                                 | 1.52                  | 1.43                   |
| SWPA3015S3R3MT | 3.3±20%                   | 0.080                   | 68                                 | 1.32                  | 1.36                   |
| SWPA3015S3R6MT | 3.6±20%                   | 0.105                   | 59                                 | 1.28                  | 1.20                   |
| SWPA3015S4R3MT | 4.3±20%                   | 0.115                   | 53                                 | 1.20                  | 1.14                   |
| SWPA3015S4R7MT | 4.7±20%                   | 0.125                   | 46                                 | 1.10                  | 1.09                   |
| SWPA3015S5R1MT | 5.1±20%                   | 0.133                   | 49                                 | 1.00                  | 1.05                   |
| SWPA3015S6R2MT | 6.2±20%                   | 0.195                   | 46                                 | 1.00                  | 0.86                   |
| SWPA3015S6R8MT | 6.8±20%                   | 0.200                   | 39                                 | 0.85                  | 0.85                   |
| SWPA3015S100MT | 10±20%                    | 0.250                   | 41                                 | 0.72                  | 0.77                   |
| SWPA3015S120MT | 12±20%                    | 0.320                   | 32                                 | 0.70                  | 0.68                   |
| SWPA3015S150MT | 15±20%                    | 0.350                   | 30                                 | 0.66                  | 0.65                   |
| SWPA3015S180MT | 18±20%                    | 0.430                   | 23                                 | 0.56                  | 0.59                   |
| SWPA3015S220MT | 22±20%                    | 0.460                   | 23                                 | 0.52                  | 0.57                   |
| SWPA3015S270MT | 27±20%                    | 0.730                   | 22                                 | 0.48                  | 0.45                   |
| SWPA3015S330MT | 33±20%                    | 0.820                   | 20                                 | 0.44                  | 0.43                   |
| SWPA3015S390MT | 39±20%                    | 0.995                   | 14                                 | 0.41                  | 0.39                   |
| SWPA3015S430MT | 43±20%                    | 1.060                   | 16                                 | 0.37                  | 0.37                   |
| SWPA3015S470MT | 47±20%                    | 1.250                   | 14                                 | 0.35                  | 0.35                   |
| SWPA3015S560MT | 56±20%                    | 1.280                   | 13                                 | 0.33                  | 0.34                   |
| SWPA3015S620MT | 62±20%                    | 1.610                   | 13                                 | 0.30                  | 0.30                   |
| SWPA3015S680MT | 68±20%                    | 2.700                   | 11                                 | 0.28                  | 0.23                   |

## SPECIFICATIONS

### SWPA4010S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4010S1R0NT | 1.0±30%                   | 0.056                   | 116                                | 2.00                  | 1.90                   |
| SWPA4010S1R5NT | 1.5±30%                   | 0.070                   | 94                                 | 1.68                  | 1.70                   |
| SWPA4010S2R2MT | 2.2±20%                   | 0.085                   | 73                                 | 1.20                  | 1.50                   |
| SWPA4010S3R3MT | 3.3±20%                   | 0.100                   | 58                                 | 1.10                  | 1.40                   |
| SWPA4010S4R7MT | 4.7±20%                   | 0.140                   | 47                                 | 0.95                  | 1.20                   |
| SWPA4010S6R8MT | 6.8±20%                   | 0.200                   | 38                                 | 0.80                  | 1.00                   |
| SWPA4010S100MT | 10±20%                    | 0.300                   | 31                                 | 0.62                  | 0.75                   |
| SWPA4010S150MT | 15±20%                    | 0.430                   | 24                                 | 0.54                  | 0.60                   |
| SWPA4010S220MT | 22±20%                    | 0.570                   | 19                                 | 0.45                  | 0.50                   |

### SWPA4018S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4018S1R0NT | 1.0±30%                   | 0.025                   | 80                                 | 4.80                  | 2.00                   |
| SWPA4018S1R5NT | 1.5±30%                   | 0.030                   | 65                                 | 3.35                  | 1.80                   |
| SWPA4018S2R2MT | 2.2±20%                   | 0.045                   | 52                                 | 2.70                  | 1.65                   |
| SWPA4018S3R3MT | 3.3±20%                   | 0.070                   | 44                                 | 2.45                  | 1.23                   |
| SWPA4018S4R7MT | 4.7±20%                   | 0.090                   | 34                                 | 1.70                  | 1.20                   |
| SWPA4018S6R8MT | 6.8±20%                   | 0.110                   | 29                                 | 1.45                  | 1.06                   |
| SWPA4018S100MT | 10±20%                    | 0.180                   | 24                                 | 1.30                  | 0.84                   |
| SWPA4018S150MT | 15±20%                    | 0.250                   | 19                                 | 0.94                  | 0.65                   |
| SWPA4018S220MT | 22±20%                    | 0.360                   | 16                                 | 0.80                  | 0.59                   |
| SWPA4018S330MT | 33±20%                    | 0.530                   | 12                                 | 0.56                  | 0.49                   |
| SWPA4018S470MT | 47±20%                    | 0.650                   | 10                                 | 0.57                  | 0.42                   |
| SWPA4018S680MT | 68±20%                    | 1.000                   | 8.3                                | 0.47                  | 0.32                   |
| SWPA4018S101MT | 100±20%                   | 1.750                   | 6.5                                | 0.40                  | 0.25                   |
| SWPA4018S151MT | 150±20%                   | 2.500                   | 5.5                                | 0.31                  | 0.22                   |
| SWPA4018S221MT | 220±20%                   | 4.000                   | 4.0                                | 0.27                  | 0.17                   |

## SPECIFICATIONS

### SWPA4020S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4020S1R0NT | 1.0±30%                   | 0.029                   | 75                                 | 4.78                  | 2.15                   |
| SWPA4020S1R2NT | 1.2±30%                   | 0.029                   | 72                                 | 5.10                  | 2.15                   |
| SWPA4020S1R5NT | 1.5±30%                   | 0.035                   | 71                                 | 4.45                  | 1.98                   |
| SWPA4020S2R2NT | 2.2±30%                   | 0.040                   | 49                                 | 3.40                  | 1.85                   |
| SWPA4020S3R3MT | 3.3±20%                   | 0.070                   | 44                                 | 3.20                  | 1.40                   |
| SWPA4020S3R6MT | 3.6±20%                   | 0.055                   | 49                                 | 2.80                  | 1.54                   |
| SWPA4020S4R7MT | 4.7±20%                   | 0.075                   | 42                                 | 2.35                  | 1.34                   |
| SWPA4020S5R1MT | 5.1±20%                   | 0.085                   | 42                                 | 2.30                  | 1.27                   |
| SWPA4020S5R6MT | 5.6±20%                   | 0.090                   | 30                                 | 2.20                  | 1.22                   |
| SWPA4020S6R2MT | 6.2±20%                   | 0.115                   | 36                                 | 2.15                  | 1.08                   |
| SWPA4020S6R8MT | 6.8±20%                   | 0.125                   | 33                                 | 2.20                  | 1.04                   |
| SWPA4020S7R5MT | 7.5±20%                   | 0.115                   | 30                                 | 1.85                  | 1.08                   |
| SWPA4020S8R2MT | 8.2±20%                   | 0.125                   | 27                                 | 1.75                  | 1.04                   |
| SWPA4020S100MT | 10±20%                    | 0.165                   | 26                                 | 1.60                  | 0.90                   |
| SWPA4020S120MT | 12±20%                    | 0.175                   | 26                                 | 1.50                  | 0.88                   |
| SWPA4020S150MT | 15±20%                    | 0.230                   | 24                                 | 1.35                  | 0.77                   |
| SWPA4020S220MT | 22±20%                    | 0.350                   | 15                                 | 1.05                  | 0.62                   |
| SWPA4020S270MT | 27±20%                    | 0.545                   | 14                                 | 1.02                  | 0.50                   |
| SWPA4020S330MT | 33±20%                    | 0.550                   | 11                                 | 0.85                  | 0.49                   |
| SWPA4020S390MT | 39±20%                    | 0.650                   | 11                                 | 0.82                  | 0.46                   |
| SWPA4020S430MT | 43±20%                    | 0.660                   | 10                                 | 0.77                  | 0.45                   |
| SWPA4020S470MT | 47±20%                    | 0.710                   | 10                                 | 0.74                  | 0.44                   |
| SWPA4020S510MT | 51±20%                    | 0.750                   | 10                                 | 0.70                  | 0.42                   |
| SWPA4020S560MT | 56±20%                    | 0.800                   | 10                                 | 0.66                  | 0.41                   |
| SWPA4020S620MT | 62±20%                    | 0.900                   | 9.6                                | 0.65                  | 0.39                   |
| SWPA4020S680MT | 68±20%                    | 1.060                   | 7.7                                | 0.61                  | 0.36                   |

### SWPA4020S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4020S750MT | 75±20%                    | 1.160                   | 7.7                                | 0.70                  | 0.35                   |
| SWPA4020S820MT | 82±20%                    | 1.170                   | 7.2                                | 0.50                  | 0.34                   |
| SWPA4020S101MT | 100±20%                   | 1.550                   | 6.3                                | 0.48                  | 0.31                   |

## SPECIFICATIONS

### SWPA4026S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4026S1R2NT | 1.2±30%                   | 0.030                   | 120                                | 3.10                  | 2.30                   |
| SWPA4026S1R5NT | 1.5±30%                   | 0.030                   | 100                                | 2.40                  | 2.30                   |
| SWPA4026S2R2MT | 2.2±20%                   | 0.040                   | 96                                 | 2.10                  | 2.00                   |
| SWPA4026S3R3MT | 3.3±20%                   | 0.050                   | 58                                 | 1.80                  | 1.70                   |
| SWPA4026S4R7MT | 4.7±20%                   | 0.055                   | 46                                 | 1.45                  | 1.60                   |
| SWPA4026S6R8MT | 6.8±20%                   | 0.065                   | 33                                 | 1.30                  | 1.50                   |
| SWPA4026S100MT | 10±20%                    | 0.085                   | 26                                 | 1.00                  | 1.30                   |
| SWPA4026S150MT | 15±20%                    | 0.110                   | 19                                 | 0.90                  | 1.10                   |
| SWPA4026S220MT | 22±20%                    | 0.165                   | 13                                 | 0.60                  | 0.90                   |
| SWPA4026S330MT | 33±20%                    | 0.270                   | 9                                  | 0.55                  | 0.70                   |
| SWPA4026S470MT | 47±20%                    | 0.300                   | 6                                  | 0.40                  | 0.65                   |

### SWPA4030S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4030SR91NT | 0.91±30%                  | 0.013                   | 100                                | 6.25                  | 4.00                   |
| SWPA4030S1R0NT | 1.0±30%                   | 0.014                   | 70                                 | 5.26                  | 4.15                   |
| SWPA4030S1R2NT | 1.2±30%                   | 0.015                   | 80                                 | 5.80                  | 3.82                   |
| SWPA4030S1R5NT | 1.5±30%                   | 0.020                   | 62                                 | 4.84                  | 3.34                   |
| SWPA4030S1R8NT | 1.8±30%                   | 0.028                   | 60                                 | 5.40                  | 3.20                   |
| SWPA4030S2R2NT | 2.2±30%                   | 0.030                   | 52                                 | 4.90                  | 2.95                   |
| SWPA4030S3R3MT | 3.3±20%                   | 0.040                   | 38                                 | 3.30                  | 2.40                   |
| SWPA4030S3R9MT | 3.9±20%                   | 0.057                   | 32                                 | 3.00                  | 2.10                   |
| SWPA4030S4R3MT | 4.3±20%                   | 0.055                   | 37                                 | 2.95                  | 2.10                   |
| SWPA4030S4R7MT | 4.7±20%                   | 0.060                   | 31                                 | 2.90                  | 2.00                   |
| SWPA4030S5R6MT | 5.6±20%                   | 0.065                   | 30                                 | 2.60                  | 1.95                   |
| SWPA4030S6R8MT | 6.8±20%                   | 0.090                   | 24                                 | 2.75                  | 1.60                   |
| SWPA4030S7R5MT | 7.5±20%                   | 0.085                   | 26                                 | 2.20                  | 1.65                   |
| SWPA4030S8R2MT | 8.2±20%                   | 0.090                   | 26                                 | 2.10                  | 1.60                   |
| SWPA4030S100MT | 10±20%                    | 0.100                   | 21                                 | 1.95                  | 1.50                   |
| SWPA4030S120MT | 12±20%                    | 0.135                   | 18                                 | 1.70                  | 1.30                   |
| SWPA4030S150MT | 15±20%                    | 0.190                   | 16                                 | 1.65                  | 1.11                   |
| SWPA4030S180MT | 18±20%                    | 0.200                   | 10                                 | 1.40                  | 1.10                   |
| SWPA4030S220MT | 22±20%                    | 0.225                   | 10                                 | 1.30                  | 1.00                   |
| SWPA4030S330MT | 33±20%                    | 0.330                   | 10                                 | 1.10                  | 0.84                   |

## SPECIFICATIONS

### SWPA4030S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA4030S360MT | 36±20%                   | 0.335                   | 9.8                                | 1.05                  | 0.83                   |
| SWPA4030S390MT | 39±20%                   | 0.435                   | 10                                 | 1.03                  | 0.73                   |
| SWPA4030S470MT | 47±20%                   | 0.445                   | 8.4                                | 0.95                  | 0.72                   |
| SWPA4030S510MT | 51±20%                   | 0.470                   | 8.4                                | 0.90                  | 0.70                   |
| SWPA4030S560MT | 56±20%                   | 0.555                   | 8.4                                | 0.85                  | 0.65                   |
| SWPA4030S620MT | 62±20%                   | 0.585                   | 7                                  | 0.80                  | 0.63                   |
| SWPA4030S680MT | 68±20%                   | 0.868                   | 7                                  | 0.72                  | 0.52                   |
| SWPA4030S750MT | 75±20%                   | 1.020                   | 6.3                                | 0.70                  | 0.48                   |
| SWPA4030S820MT | 82±20%                   | 1.060                   | 5.6                                | 0.66                  | 0.47                   |
| SWPA4030S910MT | 91±20%                   | 1.100                   | 5.6                                | 0.65                  | 0.46                   |
| SWPA4030S101MT | 100±20%                  | 1.150                   | 5.6                                | 0.60                  | 0.45                   |
| SWPA4030S121MT | 120±20%                  | 1.350                   | 5.4                                | 0.55                  | 0.42                   |
| SWPA4030S471KT | 470±10%                  | 7.200                   | 2.0                                | 0.30                  | 0.17                   |

### SWPA5012S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) |       | Min.<br>Self-resonant<br>Frequency | Saturation Current |      | Heat Rating Current |      |
|----------------|--------------------------|-------------------------|-------|------------------------------------|--------------------|------|---------------------|------|
| -              | -                        | Max.                    | Typ.  | Min.                               | Max.               | Typ. | Max.                | Typ. |
| Units          | μH                       | Ω                       | Ω     | MHz                                | A                  | A    | A                   | A    |
| Symbol         | L                        | DCR                     |       | S.R.F                              | Isat               |      | Irms                |      |
| SWPA5012S1R0NT | 1.0±30%                  | 0.068                   | 0.057 | 103                                | 4.40               | 4.70 | 2.00                | 2.40 |
| SWPA5012S1R5NT | 1.5±30%                  | 0.086                   | 0.072 | 68                                 | 3.70               | 3.80 | 1.90                | 2.20 |
| SWPA5012S2R2NT | 2.2±30%                  | 0.108                   | 0.090 | 50                                 | 3.10               | 3.20 | 1.70                | 2.00 |
| SWPA5012S3R3NT | 3.3±30%                  | 0.151                   | 0.126 | 34                                 | 2.40               | 2.60 | 1.40                | 1.70 |
| SWPA5012S4R7NT | 4.7±30%                  | 0.197                   | 0.164 | 31                                 | 2.20               | 2.30 | 1.30                | 1.50 |
| SWPA5012S6R8MT | 6.8±20%                  | 0.294                   | 0.245 | 22                                 | 1.70               | 1.90 | 1.00                | 1.20 |
| SWPA5012S100MT | 10±20%                   | 0.413                   | 0.344 | 17                                 | 1.40               | 1.50 | 0.85                | 1.00 |
| SWPA5012S150MT | 15±20%                   | 0.523                   | 0.436 | 13                                 | 1.20               | 1.30 | 0.80                | 0.92 |

### SWPA5020S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA5020SR47NT | 0.47±30%                 | 0.013                   | 160                                | 6.15                  | 4.60                   |
| SWPA5020SR75NT | 0.75±30%                 | 0.017                   | 117                                | 5.50                  | 4.00                   |
| SWPA5020S1R0NT | 1.0±30%                  | 0.020                   | 114                                | 4.10                  | 3.80                   |
| SWPA5020S1R2NT | 1.2±30%                  | 0.022                   | 83                                 | 4.50                  | 3.55                   |
| SWPA5020S1R5NT | 1.5±30%                  | 0.026                   | 68                                 | 4.10                  | 3.20                   |
| SWPA5020S2R2NT | 2.2±30%                  | 0.032                   | 57                                 | 3.20                  | 2.90                   |
| SWPA5020S2R7NT | 2.7±30%                  | 0.038                   | 52                                 | 2.90                  | 2.70                   |
| SWPA5020S3R0NT | 3.0±30%                  | 0.038                   | 49                                 | 2.55                  | 2.70                   |
| SWPA5020S3R3NT | 3.3±30%                  | 0.043                   | 46                                 | 2.55                  | 2.50                   |
| SWPA5020S3R6NT | 3.6±30%                  | 0.043                   | 43                                 | 2.80                  | 2.50                   |
| SWPA5020S3R9NT | 3.9±30%                  | 0.043                   | 40                                 | 2.30                  | 2.50                   |
| SWPA5020S4R3MT | 4.3±20%                  | 0.057                   | 37                                 | 2.50                  | 2.20                   |
| SWPA5020S4R7MT | 4.7±20%                  | 0.057                   | 37                                 | 2.50                  | 2.20                   |

## SPECIFICATIONS

### SWPA5020S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA5020S5R1MT | 5.1±20%                   | 0.064                   | 32                                 | 2.25                  | 2.05                   |
| SWPA5020S5R6MT | 5.6±20%                   | 0.064                   | 32                                 | 2.30                  | 2.05                   |
| SWPA5020S6R8MT | 6.8±20%                   | 0.083                   | 30                                 | 2.05                  | 1.80                   |
| SWPA5020S7R5MT | 7.5±20%                   | 0.090                   | 26                                 | 1.85                  | 1.75                   |
| SWPA5020S8R2MT | 8.2±20%                   | 0.098                   | 26                                 | 1.85                  | 1.65                   |
| SWPA5020S9R1MT | 9.1±20%                   | 0.110                   | 24                                 | 1.70                  | 1.55                   |
| SWPA5020S100MT | 10±20%                    | 0.110                   | 24                                 | 1.70                  | 1.55                   |
| SWPA5020S120MT | 12±20%                    | 0.140                   | 22                                 | 1.50                  | 1.40                   |
| SWPA5020S150MT | 15±20%                    | 0.165                   | 20                                 | 1.35                  | 1.25                   |
| SWPA5020S180MT | 18±20%                    | 0.200                   | 16                                 | 1.25                  | 1.15                   |
| SWPA5020S220MT | 22±20%                    | 0.226                   | 14                                 | 1.15                  | 1.10                   |
| SWPA5020S330MT | 33±20%                    | 0.390                   | 10                                 | 0.92                  | 0.90                   |
| SWPA5020S470MT | 47±20%                    | 0.523                   | 7                                  | 0.77                  | 0.77                   |
| SWPA5020S560MT | 56±20%                    | 0.630                   | 6                                  | 0.77                  | 0.70                   |
| SWPA5020S101MT | 100±20%                   | 1.100                   | 6                                  | 0.53                  | 0.53                   |

### SWPA5040S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA5040S1R0NT | 1.0±30%                   | 0.012                   | 117                                | 7.35                  | 4.90                   |
| SWPA5040S1R2NT | 1.2±30%                   | 0.016                   | 110                                | 6.50                  | 4.15                   |
| SWPA5040S1R5NT | 1.5±30%                   | 0.015                   | 86                                 | 6.30                  | 4.30                   |
| SWPA5040S2R2NT | 2.2±30%                   | 0.019                   | 50                                 | 4.90                  | 3.80                   |
| SWPA5040S2R7NT | 2.7±30%                   | 0.022                   | 37                                 | 4.30                  | 3.60                   |
| SWPA5040S3R3NT | 3.3±30%                   | 0.024                   | 32                                 | 3.95                  | 3.40                   |
| SWPA5040S3R9NT | 3.9±30%                   | 0.027                   | 29                                 | 3.55                  | 3.20                   |
| SWPA5040S4R7NT | 4.7±30%                   | 0.030                   | 28                                 | 3.50                  | 3.00                   |
| SWPA5040S6R8MT | 6.8±20%                   | 0.043                   | 21                                 | 2.90                  | 2.50                   |
| SWPA5040S100MT | 10±20%                    | 0.064                   | 18                                 | 2.35                  | 2.10                   |
| SWPA5040S150MT | 15±20%                    | 0.086                   | 13                                 | 2.00                  | 2.00                   |
| SWPA5040S220MT | 22±20%                    | 0.129                   | 11                                 | 1.60                  | 1.50                   |
| SWPA5040S330MT | 33±20%                    | 0.188                   | 9.1                                | 1.30                  | 1.20                   |
| SWPA5040S470MT | 47±20%                    | 0.272                   | 6.7                                | 1.10                  | 1.00                   |
| SWPA5040S680MT | 68±20%                    | 0.400                   | 5.7                                | 0.90                  | 0.80                   |
| SWPA5040S101MT | 100±20%                   | 0.560                   | 4.7                                | 0.75                  | 0.70                   |

### SWPA6020S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA6020SR50NT | 0.50±30%                  | 0.014                   | 120                                | 4.50                  | 3.30                   |
| SWPA6020SR68NT | 0.68±30%                  | 0.017                   | 115                                | 6.55                  | 3.80                   |
| SWPA6020SR82NT | 0.82±30%                  | 0.017                   | 110                                | 5.30                  | 3.80                   |
| SWPA6020S1R0NT | 1.0±30%                   | 0.020                   | 100                                | 4.15                  | 3.50                   |

## SPECIFICATIONS

### SWPA6020S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA6020S1R2NT | 1.2±30%                   | 0.022                   | 88                                 | 5.90                  | 3.20                   |
| SWPA6020S1R5NT | 1.5±30%                   | 0.022                   | 79                                 | 4.25                  | 3.20                   |
| SWPA6020S1R8NT | 1.8±30%                   | 0.028                   | 68                                 | 4.85                  | 2.75                   |
| SWPA6020S2R0NT | 2.0±30%                   | 0.035                   | 65                                 | 4.10                  | 2.60                   |
| SWPA6020S2R2NT | 2.2±30%                   | 0.028                   | 61                                 | 3.75                  | 2.75                   |
| SWPA6020S2R7NT | 2.7±30%                   | 0.035                   | 56                                 | 3.90                  | 2.60                   |
| SWPA6020S3R3NT | 3.3±30%                   | 0.035                   | 51                                 | 3.15                  | 2.60                   |
| SWPA6020S3R9NT | 3.9±30%                   | 0.049                   | 45                                 | 3.25                  | 2.10                   |
| SWPA6020S4R3NT | 4.3±30%                   | 0.049                   | 44                                 | 2.70                  | 2.10                   |
| SWPA6020S4R7NT | 4.7±30%                   | 0.058                   | 41                                 | 3.00                  | 2.00                   |
| SWPA6020S5R6NT | 5.6±30%                   | 0.058                   | 36                                 | 2.40                  | 1.90                   |
| SWPA6020S6R2NT | 6.2±30%                   | 0.079                   | 31                                 | 2.30                  | 1.80                   |
| SWPA6020S6R8NT | 6.8±30%                   | 0.079                   | 31                                 | 2.20                  | 1.80                   |
| SWPA6020S8R2NT | 8.2±30%                   | 0.105                   | 27                                 | 2.10                  | 1.40                   |
| SWPA6020S100MT | 10±20%                    | 0.105                   | 27                                 | 1.75                  | 1.40                   |
| SWPA6020S120MT | 12±20%                    | 0.120                   | 25                                 | 1.45                  | 1.30                   |
| SWPA6020S150MT | 15±20%                    | 0.145                   | 21                                 | 1.20                  | 1.20                   |
| SWPA6020S180MT | 18±20%                    | 0.180                   | 18                                 | 1.20                  | 1.08                   |
| SWPA6020S220MT | 22±20%                    | 0.204                   | 16                                 | 1.05                  | 1.00                   |

### SWPA6028S Series

| Part Number    | Inductance<br>@100kHz, 1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|---------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                        | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                         | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA6028S1R0NT | 1.0±30%                   | 0.010                   | 70                                 | 5.75                  | 5.20                   |
| SWPA6028S1R5NT | 1.5±30%                   | 0.013                   | 65                                 | 6.00                  | 4.58                   |
| SWPA6028S2R2NT | 2.2±30%                   | 0.020                   | 48                                 | 5.10                  | 3.75                   |
| SWPA6028S2R7NT | 2.7±30%                   | 0.020                   | 48                                 | 3.80                  | 3.75                   |
| SWPA6028S3R3NT | 3.3±30%                   | 0.025                   | 41                                 | 4.15                  | 3.48                   |
| SWPA6028S4R7NT | 4.7±30%                   | 0.030                   | 35                                 | 3.00                  | 3.08                   |
| SWPA6028S5R1NT | 5.1±30%                   | 0.043                   | 32                                 | 3.20                  | 2.60                   |
| SWPA6028S6R2MT | 6.2±20%                   | 0.047                   | 30                                 | 3.05                  | 2.40                   |
| SWPA6028S6R8MT | 6.8±20%                   | 0.047                   | 27                                 | 2.60                  | 2.40                   |
| SWPA6028S8R2MT | 8.2±20%                   | 0.055                   | 24                                 | 2.30                  | 2.25                   |
| SWPA6028S9R1MT | 9.1±20%                   | 0.074                   | 24                                 | 2.55                  | 2.15                   |
| SWPA6028S100MT | 10±20%                    | 0.072                   | 23                                 | 2.04                  | 1.95                   |
| SWPA6028S120MT | 12±20%                    | 0.080                   | 18                                 | 1.80                  | 1.85                   |
| SWPA6028S150MT | 15±20%                    | 0.125                   | 18                                 | 1.75                  | 1.45                   |
| SWPA6028S180MT | 18±20%                    | 0.120                   | 15                                 | 1.52                  | 1.45                   |
| SWPA6028S220MT | 22±20%                    | 0.140                   | 14                                 | 1.45                  | 1.40                   |
| SWPA6028S270MT | 27±20%                    | 0.155                   | 13                                 | 1.50                  | 1.32                   |
| SWPA6028S330MT | 33±20%                    | 0.185                   | 12                                 | 1.35                  | 1.22                   |
| SWPA6028S360MT | 36±20%                    | 0.215                   | 11                                 | 1.25                  | 1.13                   |
| SWPA6028S390MT | 39±20%                    | 0.225                   | 11                                 | 1.25                  | 1.10                   |
| SWPA6028S470MT | 47±20%                    | 0.315                   | 9.5                                | 1.15                  | 1.06                   |
| SWPA6028S680MT | 68±20%                    | 0.360                   | 7.7                                | 0.80                  | 0.86                   |
| SWPA6028S750MT | 75±20%                    | 0.410                   | 7.7                                | 0.90                  | 0.81                   |
| SWPA6028S820MT | 82±20%                    | 0.500                   | 7.7                                | 0.80                  | 0.70                   |
| SWPA6028S101MT | 100±20%                   | 0.500                   | 7.1                                | 0.65                  | 0.70                   |

## SPECIFICATIONS

### SWPA6045S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA6045SR82NT | 0.82±30%                 | 0.008                   | 140                                | 10.40                 | 5.90                   |
| SWPA6045S1R0NT | 1.0±30%                  | 0.011                   | 100                                | 9.85                  | 5.14                   |
| SWPA6045S1R2NT | 1.2±30%                  | 0.010                   | 100                                | 8.35                  | 5.40                   |
| SWPA6045S1R5NT | 1.5±30%                  | 0.012                   | 65                                 | 8.80                  | 4.95                   |
| SWPA6045S1R8NT | 1.8±30%                  | 0.012                   | 74                                 | 7.60                  | 4.95                   |
| SWPA6045S2R2NT | 2.2±30%                  | 0.014                   | 52                                 | 6.75                  | 4.60                   |
| SWPA6045S2R3NT | 2.3±30%                  | 0.021                   | 60                                 | 6.00                  | 3.50                   |
| SWPA6045S2R7NT | 2.7±30%                  | 0.015                   | 38                                 | 5.75                  | 4.30                   |
| SWPA6045S3R0NT | 3.0±30%                  | 0.020                   | 35                                 | 5.60                  | 3.80                   |
| SWPA6045S3R3NT | 3.3±30%                  | 0.021                   | 32                                 | 5.90                  | 3.70                   |
| SWPA6045S3R6NT | 3.6±30%                  | 0.021                   | 28                                 | 5.25                  | 3.70                   |
| SWPA6045S4R3MT | 4.3±20%                  | 0.023                   | 23                                 | 4.45                  | 3.50                   |
| SWPA6045S4R7MT | 4.7±20%                  | 0.026                   | 24                                 | 4.97                  | 3.30                   |
| SWPA6045S5R1MT | 5.1±20%                  | 0.026                   | 23                                 | 4.40                  | 3.30                   |
| SWPA6045S5R6MT | 5.6±20%                  | 0.029                   | 23                                 | 4.15                  | 3.15                   |
| SWPA6045S6R8MT | 6.8±20%                  | 0.031                   | 20                                 | 3.90                  | 3.00                   |
| SWPA6045S7R5MT | 7.5±20%                  | 0.034                   | 18                                 | 3.50                  | 2.90                   |
| SWPA6045S8R2MT | 8.2±20%                  | 0.043                   | 21                                 | 3.90                  | 2.60                   |
| SWPA6045S9R1MT | 9.1±20%                  | 0.043                   | 17                                 | 3.35                  | 2.60                   |
| SWPA6045S100MT | 10±20%                   | 0.048                   | 15                                 | 3.20                  | 2.45                   |
| SWPA6045S120MT | 12±20%                   | 0.058                   | 13                                 | 2.80                  | 2.20                   |
| SWPA6045S150MT | 15±20%                   | 0.068                   | 12                                 | 2.50                  | 2.05                   |
| SWPA6045S180MT | 18±20%                   | 0.081                   | 10                                 | 2.20                  | 1.85                   |
| SWPA6045S220MT | 22±20%                   | 0.089                   | 10                                 | 2.05                  | 1.80                   |
| SWPA6045S270MT | 27±20%                   | 0.102                   | 9.2                                | 1.90                  | 1.65                   |
| SWPA6045S300MT | 30±20%                   | 0.132                   | 7.8                                | 1.70                  | 1.50                   |
| SWPA6045S330MT | 33±20%                   | 0.137                   | 7.8                                | 1.65                  | 1.45                   |
| SWPA6045S360MT | 36±20%                   | 0.173                   | 7.8                                | 1.62                  | 1.40                   |
| SWPA6045S390MT | 39±20%                   | 0.180                   | 7.8                                | 1.50                  | 1.25                   |
| SWPA6045S430MT | 43±20%                   | 0.200                   | 7.7                                | 1.63                  | 1.20                   |
| SWPA6045S470MT | 47±20%                   | 0.200                   | 6.4                                | 1.40                  | 1.20                   |
| SWPA6045S510MT | 51±20%                   | 0.207                   | 6.4                                | 1.35                  | 1.15                   |
| SWPA6045S560MT | 56±20%                   | 0.221                   | 6.4                                | 1.30                  | 1.10                   |
| SWPA6045S620MT | 62±20%                   | 0.235                   | 6.4                                | 1.25                  | 1.10                   |
| SWPA6045S680MT | 68±20%                   | 0.289                   | 6.4                                | 1.20                  | 1.00                   |
| SWPA6045S750MT | 75±20%                   | 0.305                   | 5.0                                | 1.15                  | 0.95                   |
| SWPA6045S820MT | 82±20%                   | 0.341                   | 4.9                                | 1.05                  | 0.90                   |
| SWPA6045S910MT | 91±20%                   | 0.359                   | 4.9                                | 1.00                  | 0.85                   |
| SWPA6045S101MT | 100±20%                  | 0.433                   | 4.2                                | 0.95                  | 0.80                   |
| SWPA6045S121MT | 120±20%                  | 0.484                   | 4.2                                | 0.85                  | 0.77                   |
| SWPA6045S151MT | 150±20%                  | 0.580                   | 4.2                                | 0.80                  | 0.70                   |
| SWPA6045S221MT | 220±20%                  | 0.834                   | 3.5                                | 0.70                  | 0.59                   |
| SWPA6045S331MT | 330±20%                  | 1.270                   | 2.8                                | 0.57                  | 0.57                   |

## SPECIFICATIONS

### SWPA8040S Series

| Part Number    | Inductance<br>@100kHz,1V | DC Resistance<br>(±30%) | Min.<br>Self-resonant<br>Frequency | Saturation<br>Current | Heat Rating<br>Current |
|----------------|--------------------------|-------------------------|------------------------------------|-----------------------|------------------------|
| Units          | μH                       | Ω                       | MHz                                | A                     | A                      |
| Symbol         | L                        | DCR                     | S.R.F                              | Isat                  | Irms                   |
| SWPA8040SR82NT | 0.82±30%                 | 0.008                   | 94                                 | 13.8                  | 6.30                   |
| SWPA8040S1R0NT | 1.0±30%                  | 0.008                   | 89                                 | 9.85                  | 6.30                   |
| SWPA8040S1R5NT | 1.5±30%                  | 0.010                   | 67                                 | 8.15                  | 5.65                   |
| SWPA8040S2R0NT | 2.0±30%                  | 0.012                   | 43                                 | 9.25                  | 5.15                   |
| SWPA8040S2R2NT | 2.2±30%                  | 0.012                   | 41                                 | 7.10                  | 5.15                   |
| SWPA8040S3R0NT | 3.0±30%                  | 0.014                   | 32                                 | 6.10                  | 4.70                   |
| SWPA8040S3R3NT | 3.3±30%                  | 0.017                   | 27                                 | 6.50                  | 4.40                   |
| SWPA8040S3R6NT | 3.6±30%                  | 0.017                   | 30                                 | 7.52                  | 4.35                   |
| SWPA8040S3R9NT | 3.9±30%                  | 0.017                   | 26                                 | 5.75                  | 4.35                   |
| SWPA8040S4R7NT | 4.7±30%                  | 0.019                   | 24                                 | 5.90                  | 4.10                   |
| SWPA8040S5R1NT | 5.1±30%                  | 0.019                   | 22                                 | 4.70                  | 4.05                   |
| SWPA8040S5R6NT | 5.6±30%                  | 0.021                   | 24                                 | 6.00                  | 3.85                   |
| SWPA8040S6R2NT | 6.2±30%                  | 0.021                   | 20                                 | 4.45                  | 3.85                   |
| SWPA8040S6R8MT | 6.8±20%                  | 0.024                   | 20                                 | 4.55                  | 3.60                   |
| SWPA8040S8R2MT | 8.2±20%                  | 0.026                   | 17                                 | 4.20                  | 3.45                   |
| SWPA8040S100MT | 10±20%                   | 0.029                   | 15                                 | 3.60                  | 3.30                   |
| SWPA8040S120MT | 12±20%                   | 0.041                   | 13                                 | 3.50                  | 2.80                   |
| SWPA8040S150MT | 15±20%                   | 0.047                   | 12                                 | 2.95                  | 2.60                   |
| SWPA8040S180MT | 18±20%                   | 0.053                   | 11                                 | 2.70                  | 2.40                   |
| SWPA8040S220MT | 22±20%                   | 0.069                   | 9.5                                | 2.40                  | 2.10                   |
| SWPA8040S270MT | 27±20%                   | 0.078                   | 9.2                                | 2.15                  | 2.00                   |
| SWPA8040S330MT | 33±20%                   | 0.097                   | 7.8                                | 2.05                  | 1.80                   |
| SWPA8040S360MT | 36±20%                   | 0.102                   | 7.8                                | 2.00                  | 1.75                   |
| SWPA8040S390MT | 39±20%                   | 0.107                   | 7.8                                | 1.95                  | 1.70                   |
| SWPA8040S430MT | 43±20%                   | 0.113                   | 7.8                                | 1.90                  | 1.65                   |
| SWPA8040S470MT | 47±20%                   | 0.136                   | 6.4                                | 1.75                  | 1.55                   |
| SWPA8040S510MT | 51±20%                   | 0.142                   | 6.4                                | 1.70                  | 1.50                   |
| SWPA8040S560MT | 56±20%                   | 0.148                   | 6.4                                | 1.55                  | 1.45                   |
| SWPA8040S620MT | 62±20%                   | 0.182                   | 6.4                                | 1.50                  | 1.30                   |
| SWPA8040S680MT | 68±20%                   | 0.196                   | 4.9                                | 1.45                  | 1.25                   |
| SWPA8040S750MT | 75±20%                   | 0.211                   | 4.9                                | 1.35                  | 1.20                   |
| SWPA8040S820MT | 82±20%                   | 0.225                   | 5.9                                | 1.30                  | 1.15                   |
| SWPA8040S910MT | 91±20%                   | 0.272                   | 4.9                                | 1.20                  | 1.05                   |
| SWPA8040S101MT | 100±20%                  | 0.290                   | 4.2                                | 1.15                  | 1.00                   |
| SWPA8040S121MT | 120±20%                  | 0.334                   | 3.5                                | 1.05                  | 0.95                   |
| SWPA8040S151MT | 150±20%                  | 0.410                   | 3.5                                | 1.10                  | 0.85                   |
| SWPA8040S221MT | 220±20%                  | 0.599                   | 3.5                                | 0.85                  | 0.80                   |
| SWPA8040S331MT | 330±20%                  | 0.889                   | 2.8                                | 0.68                  | 0.64                   |

※1: All test data is referenced to 20°C ambient;

※2: Rated current: Isat or Irms, whichever is smaller;

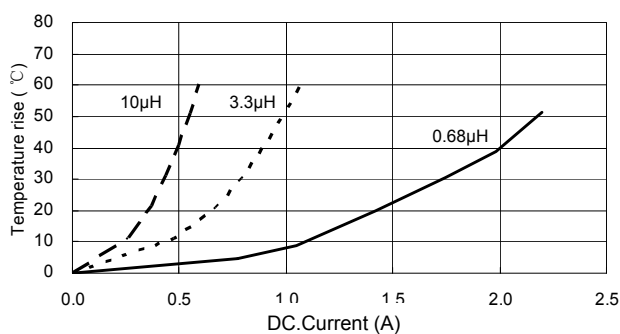
※\*3: Isat: DC current at which the inductance drops approximate 30% from its value without current;

※\*4: Irms: DC current that causes the temperature rise ( $\Delta T = 40^{\circ}\text{C}$ ) from 20°C ambient.

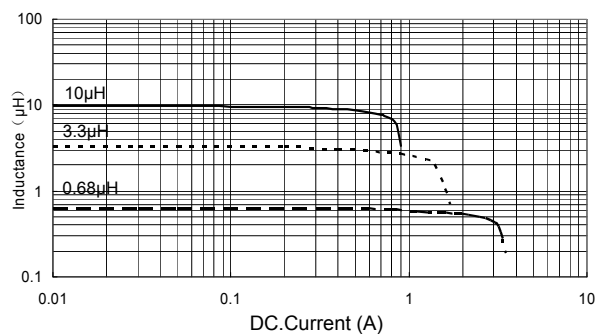
## TYPICAL ELECTRICAL CHARACTERISTICS

### SWPA252010S Series

#### Temperature vs. DC Current Characteristics

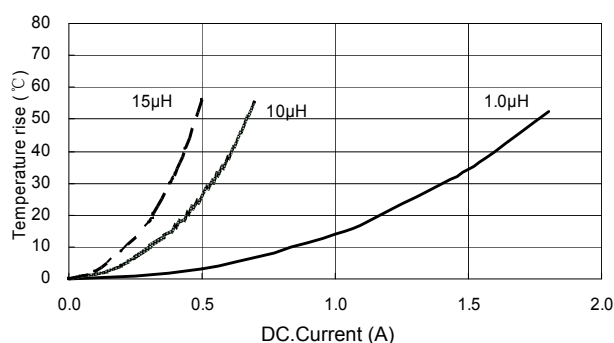


#### Inductance vs. DC Current Characteristics

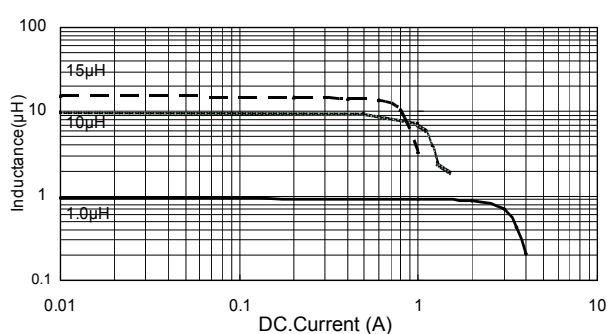


### SWPA252012S Series

#### Temperature vs. DC Current Characteristics

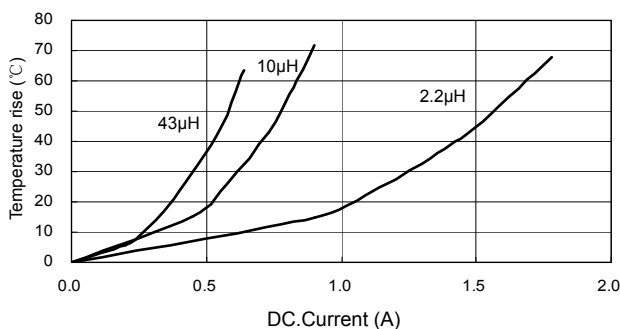


#### Inductance vs. DC Current Characteristics

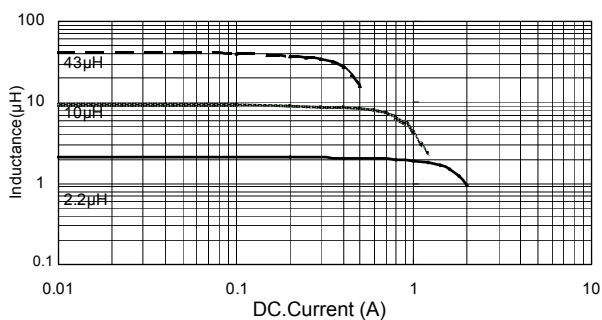


### SWPA3010S Series

#### Temperature vs. DC Current Characteristics

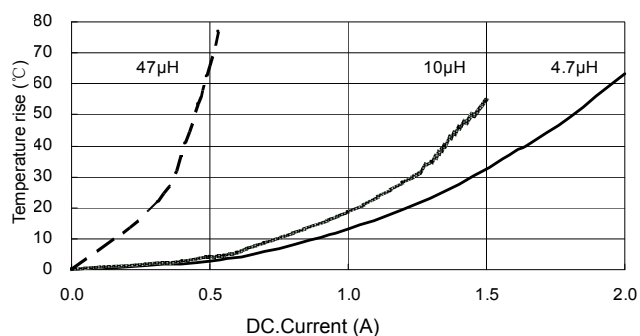


#### Inductance vs. DC Current Characteristics

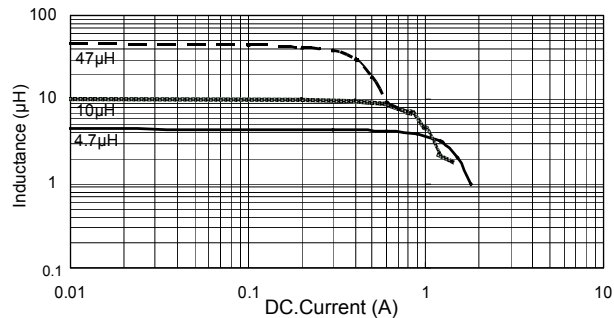


### SWPA3012S Series

#### Temperature vs. DC Current Characteristics



#### Inductance vs. DC Current Characteristics



**Sunlord**

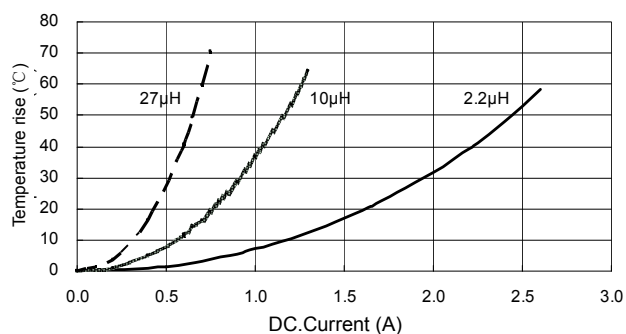
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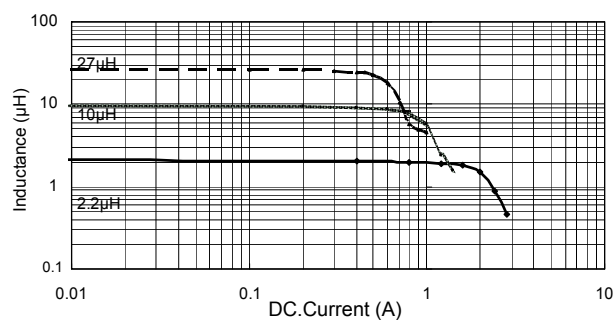
## TYPICAL ELECTRICAL CHARACTERISTICS

### SWPA3015S Series

Temperature vs. DC Current Characteristics

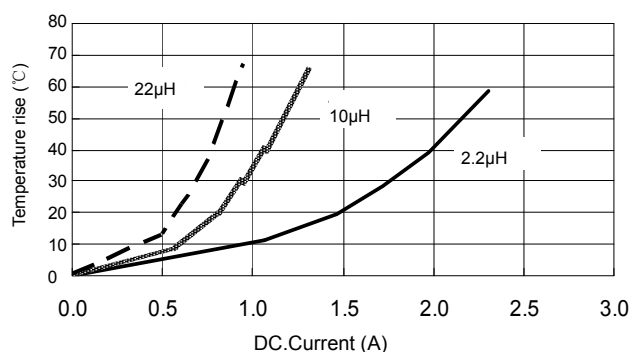


Inductance vs. DC Current Characteristics

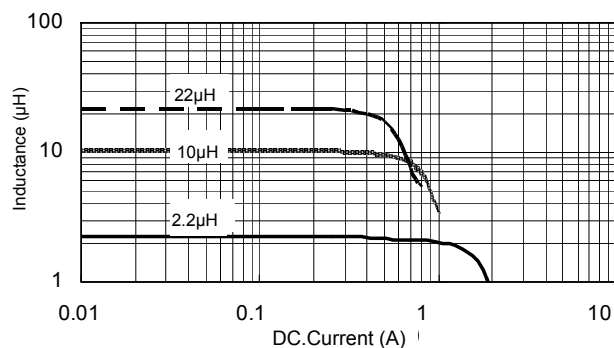


### SWPA4010S Series

Temperature vs. DC Current Characteristics

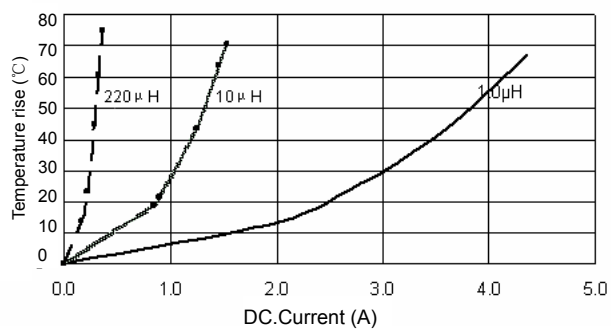


Inductance vs. DC Current Characteristic

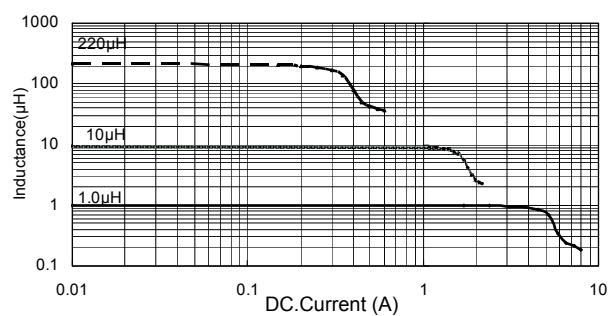


### SWPA4018S Series

Temperature vs. DC Current Characteristics



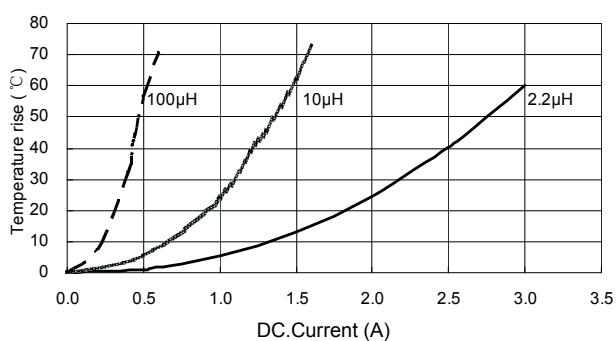
Inductance vs. DC Current Characteristics



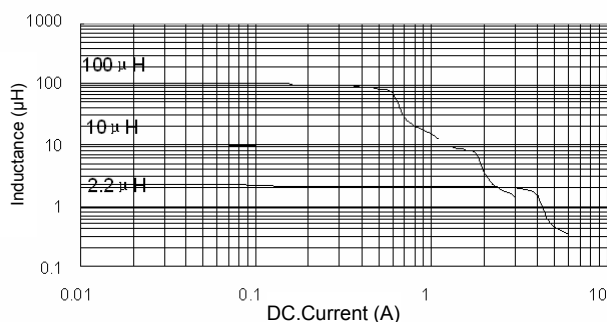
## TYPICAL ELECTRICAL CHARACTERISTICS

### SWPA4020S Series

Temperature vs. DC Current Characteristics

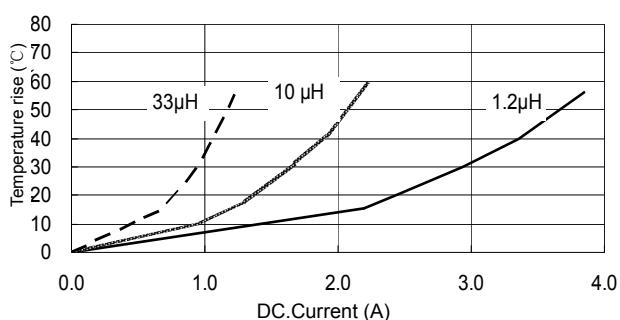


Inductance vs. DC Current Characteristics

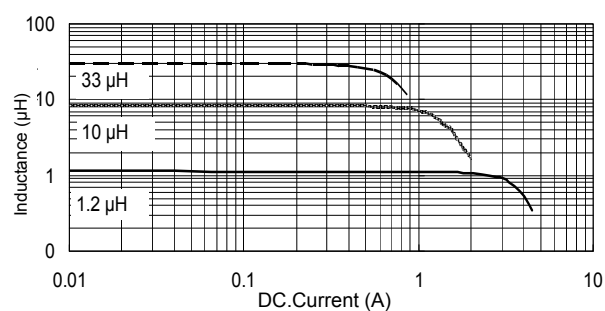


### SWPA4026S Series

Temperature vs. DC Current Characteristics

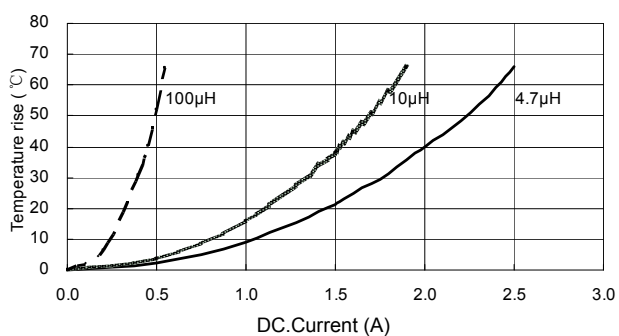


Inductance vs. DC Current Characteristics

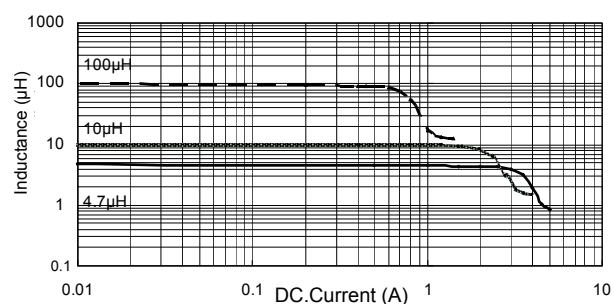


### SWPA4030S Series

Temperature vs. DC Current Characteristics

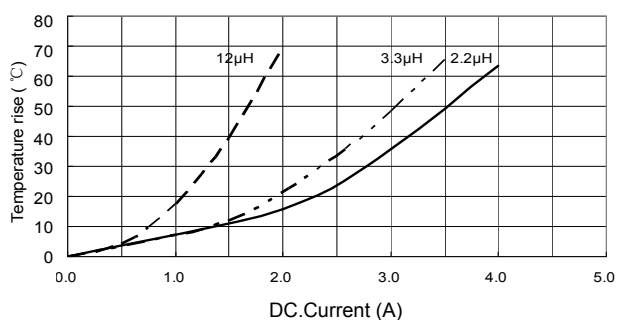


Inductance vs. DC Current Characteristics

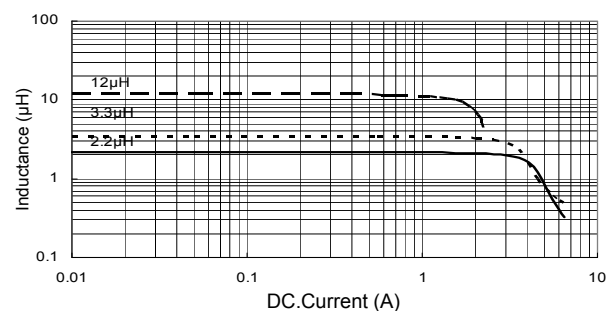


### SWPA5020S Series

Temperature vs. DC Current Characteristics



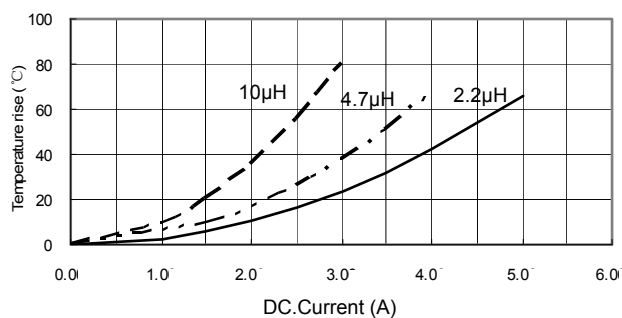
Inductance vs. DC Current Characteristics



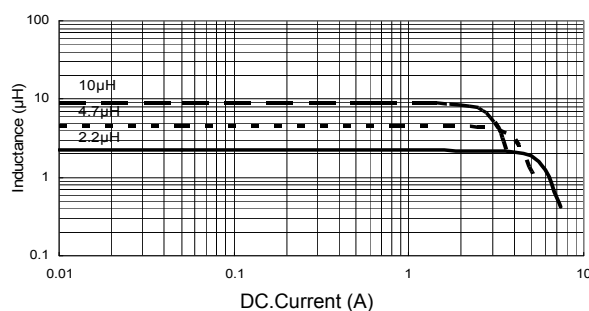
## TYPICAL ELECTRICAL CHARACTERISTICS

### SWPA5040S Series

Temperature vs. DC Current Characteristics

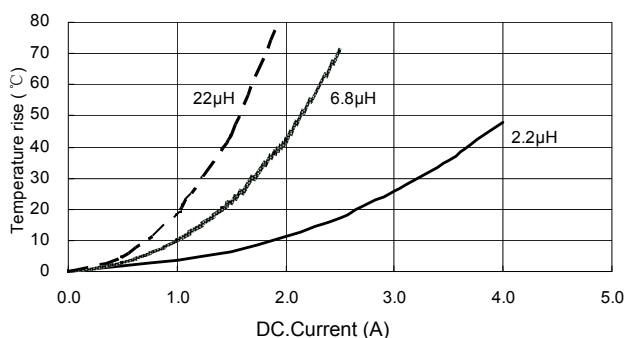


Inductance vs. DC Current Characteristics

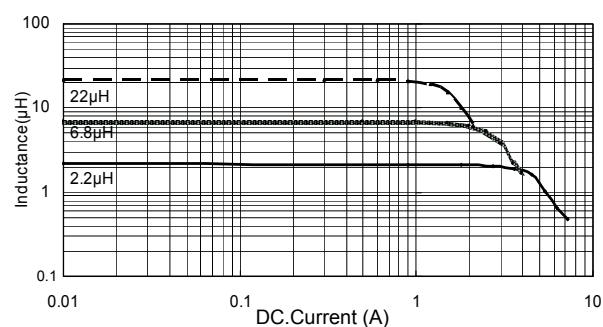


### SWPA6020S Series

Temperature vs. DC Current Characteristics

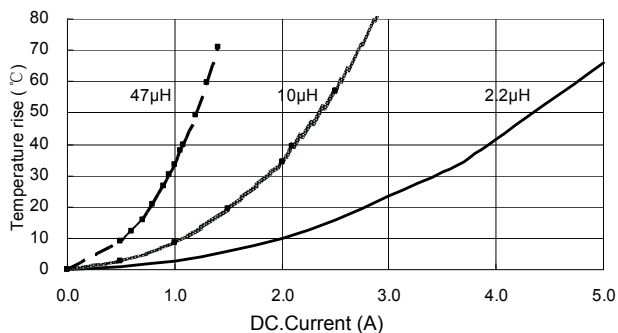


Inductance vs. DC Current Characteristics

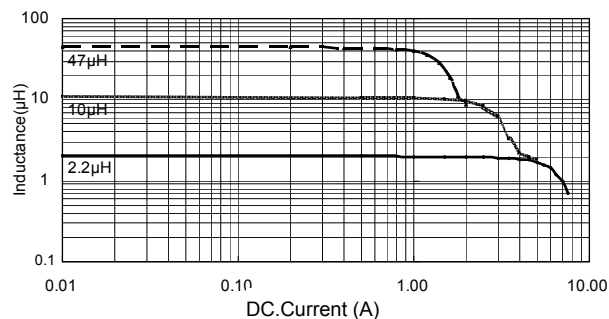


### SWPA6028S Series

Temperature vs. DC Current Characteristics

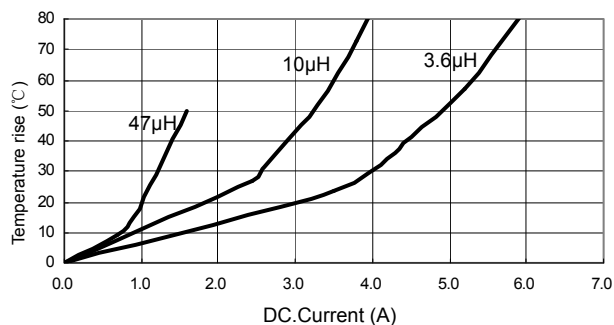


Inductance vs. DC Current Characteristics

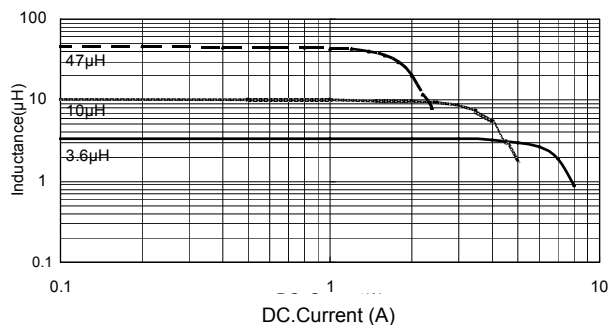


### SWPA6045S Series

Temperature vs. DC Current Characteristics



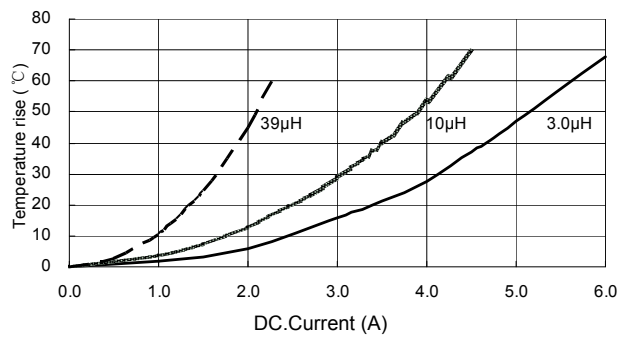
Inductance vs. DC Current Characteristics



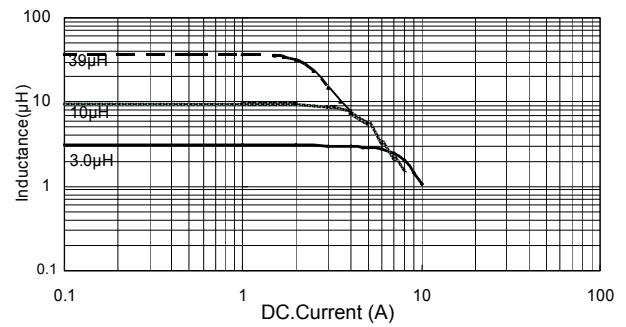
## TYPICAL ELECTRICAL CHARACTERISTICS

### SWPA8040S Series

#### Temperature vs. DC Current Characteristics



#### Inductance vs. DC Current Characteristics



## PACKAGING

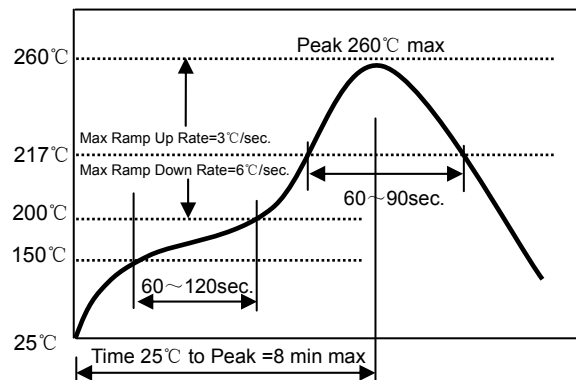
| Type           | Tape Width | Reel Diameter | Quantity (pcs) |
|----------------|------------|---------------|----------------|
| 252010/252012  | 8mm        | 178mm         | 2K             |
| 3010/3012/3015 | 8mm        | 178mm         | 2K             |
| 4010           | 12 mm      | 330 mm        | 5K             |
| 4018/4020      | 12 mm      | 330mm         | 3K             |
| 4026           | 12 mm      | 330mm         | 2.5K           |
| 4030           | 12 mm      | 330mm         | 2K             |
| 5012           | 12 mm      | 330mm         | 4.5            |
| 5020           | 12 mm      | 330mm         | 2.5            |
| 5040           | 12 mm      | 330mm         | 1.5            |
| 6010/6012/6020 | 16 mm      | 330mm         | 2.5K           |
| 6028           | 16 mm      | 330mm         | 2K             |
| 6040/6045      | 16 mm      | 330mm         | 1.5K           |
| 8040           | 16 mm      | 330mm         | 1K             |

## RECOMMENDED SOLDERING TECHNOLOGIES

### ● Re-flowing Profile:

- △ Preheat condition: 150 ~200 °C/60~120sec.
- △ Allowed time above 217 °C: 60~90sec.
- △ Max temp: 260 °C
- △ Max time at max temp: 10sec.
- △ Solder paste: Sn/3.0Ag/0.5Cu
- △ Allowed Reflow time: 2x max

[Note: The reflow profile in the above table is only for qualification and is not meant to specify board assembly profiles. Actual board assembly profiles must be based on the customer's specific board design, solder paste and process, and should not exceed the parameters as the Reflow profile shows.]



### ● Iron Soldering Profile.

- △ Iron soldering power: Max.30W
- △ Pre-heating: 150 °C/60 sec.
- △ Soldering Tip temperature: 350°C Max.
- △ Soldering time: 3sec Max.
- △ Solder paste: Sn/3.0Ag/0.5Cu
- △ Max.1 times for iron soldering

[Note: Take care not to apply the tip of the soldering iron to the terminal electrodes.]

