

SCDS Series

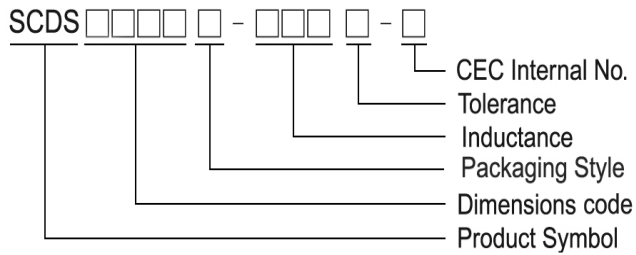
Features

- RoHS, Halogen Free and REACH Compliance
- Magnetic shielded
- Various package size and wide inductance range

Applications

- AP Routers
- STBs
- LCD TVs and monitors
- Game consoles
- LED lightings
- DC/DC converters

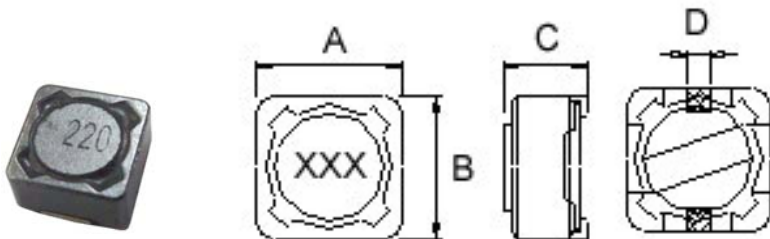
Product Identification



- T : Packaging: Tape and Reel

SCDS 73/ 74

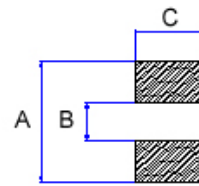
Shape and Dimensions



Dimension in mm

| TYPE | A | B | C | D |
|--------|---------|---------|-------------------|-----|
| SCDS73 | 7.3±0.2 | 7.3±0.2 | 3.4 ⁺⁰ | 1.8 |
| SCDS74 | 7.3±0.2 | 7.3±0.2 | 4.5 ⁺⁰ | 1.8 |

Recommended Pattern

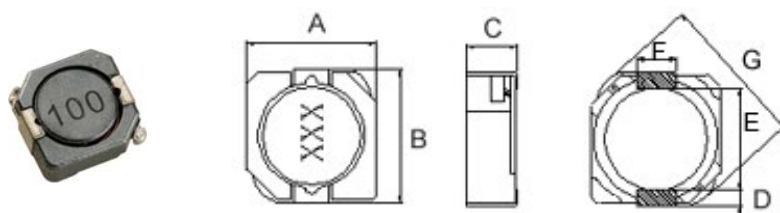


Dimension in mm

| TYPE | A | B | C |
|--------|-----|-----|-----|
| SCDS73 | 8.4 | 4.4 | 2.2 |
| SCDS74 | 8.4 | 4.4 | 2.2 |

SCDS 103R/ 104R/ 105R

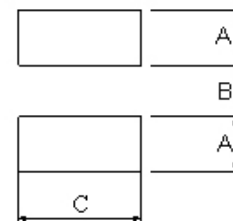
Shape and Dimensions



Dimensions in mm

| TYPE | A | B | C | D | E | F | G |
|----------|--------------------|--------------------|-------------------|-----|-----|-----|--------------------|
| SCDS103R | 10.3 ⁺⁰ | 10.5 ⁺⁰ | 3.1 ⁺⁰ | 1.2 | 7.7 | 3.0 | 13.5 ⁺⁰ |
| SCDS104R | 10.3 ⁺⁰ | 10.5 ⁺⁰ | 4 ⁺⁰ | 1.2 | 7.7 | 3.0 | 13.5 ⁺⁰ |
| SCDS105R | 10.3 ⁺⁰ | 10.5 ⁺⁰ | 5.1 ⁺⁰ | 1.2 | 7.7 | 3.0 | 13.5 ⁺⁰ |

Recommended Pattern

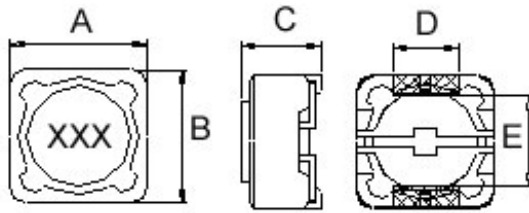


Dimension in mm

| TYPE | A | B | C |
|----------|-----|-----|-----|
| SCDS103R | 1.6 | 7.3 | 3.2 |
| SCDS104R | 1.6 | 7.3 | 3.2 |
| SCDS105R | 1.6 | 7.3 | 3.2 |

SCDS 124/125/127

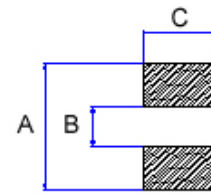
Shape and Dimensions



Dimensions in mm

| TYPE | A | B | C | D | E |
|---------|--------------------|--------------------|-------------------|---|-----|
| SCDS124 | 12.5 ⁺⁰ | 12.5 ⁺⁰ | 4.5 ⁺⁰ | 5 | 7.6 |
| SCDS125 | 12.5 ⁺⁰ | 12.5 ⁺⁰ | 6 ⁺⁰ | 5 | 7.6 |
| SCDS127 | 12.5 ⁺⁰ | 12.5 ⁺⁰ | 8 ⁺⁰ | 5 | 7.6 |

Recommended Pattern



Dimensions in mm

| TYPE | A | B | C |
|---------|----|---|-----|
| SCDS124 | 13 | 7 | 5.4 |
| SCDS125 | 13 | 7 | 5.4 |
| SCDS127 | 13 | 7 | 5.4 |

Standard Specifications

| Stamp | Inductance (μH) | RDC ($\text{m}\Omega$) Max | | | | | | | |
|-------|---------------------------------|------------------------------|------------|--------------|--------------|--------------|-------------|-------------|-------------|
| | | SCDS 73 | SCDS 74 | SCDS 103R | SCDS 104R | SCDS 105R | SCDS 124 | SCDS 125 | SCDS 127 |
| R80 | 0.8 | | | | | 4.3 | | | |
| 1R0 | 1.0 | | | | 7.5 | | | | |
| 1R2 | 1.2 | | | | | | | | 7.0 |
| 1R5 | 1.5 | 30 | 20 | | 8.1 | 5.8 | | | 8.0 |
| 1R8 | 1.8 | | 25 | | 9.5 | | | | |
| 2R2 | 2.2 | 30 | 25 | | 10.5 | 11 | | | 11.5 |
| 2R4 | 2.4 | | | | | | | | 11.5 |
| 2R5 | 2.5 | | | | 10.5 | | | | |
| 2R7 | 2.7 | | 30 | | | | | | |
| 3R3 | 3.3 | 40 | 35 | | 13 | 10.4 | 15 | 15 | 13.5 |
| 3R5 | 3.5 | | | | | | | | 13.5 |
| 3R8 | 3.8 | | | | 13 | | | | |
| 3R9 | 3.9 | | | | | | 15 | | |
| 4R7 | 4.7 | | 35 | 30 | 18 | 12.3 | 18 | 18 | 15.8 |
| 5R2 | 5.2 | | | | 22 | | | | |
| 5R6 | 5.6 | | | | 27 | | | | |
| 6R1 | 6.1 | | | | | | | | 17.6 |
| 6R4 | 6.4 | | | | | | | 18 | |
| 6R8 | 6.8 | 60 | 45 | 35 | 27 | 18 | 23 | | 20.0 |
| 7R0 | 7.0 | | | | 27 | | | | |
| 7R6 | 7.6 | | | | | | | | 20.0 |
| 8R2 | 8.2 | | | | 33 | 20 | | 25 | |
| 100 | 10 | 72 | 49 | 59 | 35 | 26 | 28 | 25 | 21.6 |
| 120 | 12 | 98 | 58 | | | 33 | 38 | 27 | 24.3 |
| 150 | 15 | 130 | 81 | 91 | 50 | 41 | 50 | 30 | 27.0 |
| 180 | 18 | 140 | 91 | | 70 | 46 | 57 | 34 | 39.2 |
| 220 | 22 | 190 | 110 | | 73 | 61 | 66 | 36 | 43.2 |
| 270 | 27 | 210 | 150 | | 90 | 69 | 80 | 51 | 45.9 |
| 330 | 33 | 240 | 170 | 202 | 93 | 84 | 97 | 57 | 64.8 |
| 390 | 39 | 320 | 230 | | 128 | 106 | 132 | 68 | 72.9 |
| 470 | 47 | 360 | 260 | 299 | 128 | 130 | 150 | 75 | 100 |
| 560 | 56 | 470 | 350 | | 213 | 149 | 190 | 110 | 110 |
| 680 | 68 | 520 | 380 | | 213 | 201 | 220 | 120 | 140 |
| 820 | 82 | 690 | 430 | | 280 | 227 | 260 | 140 | 160 |
| 101 | 100 | 790 | 610 | | 304 | 253 | 308 | 160 | 220 |
| 121 | 120 | 890 | 660 | | | 303 | 380 | 170 | 250 |
| 151 | 150 | 1270 | 880 | | 506 | 370 | 530 | 230 | 280 |
| 181 | 180 | 1450 | 980 | | | 419 | 620 | 290 | 350 |
| 201 | 200 | | | | 756 | | | | |
| 221 | 220 | 1650 | 1170 | | 756 | 500 | 700 | 400 | 390 |
| 271 | 270 | 2310 | 1640 | | | 672 | 876 | 460 | 560 |
| 331 | 330 | 2620 | 1860 | | 1090 | 812 | 990 | 510 | 640 |
| 391 | 390 | 2940 | 2850 | | | 953 | | 690 | 700 |
| 471 | 470 | 4180 | 3010 | | 1600 | 1289 | | 770 | 980 |
| 561 | 560 | 4670 | 3620 | | | 1430 | | 860 | 1070 |
| 681 | 680 | 5730 | 4630 | | | 1599 | | 1200 | 1460 |
| 821 | 820 | 6540 | 5200 | | | 1768 | | 1340 | 1640 |
| 102 | 1000 | 9440 | 6000 | | | 1989 | | 1530 | 1820 |

Note: When ordering, please specify tolerance code. Tolerance: $M=\pm 20\%$, $T=\pm 30\%$, $N = +40\%$ -20%

- Operating temperature range - 40°C ~ 105°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value with current
- Measure Equipment :
 - L : Agilent/ E4980 or HP4284A (under 1MHz), HP4285A (over 1MHz)
 - RDC : CHEN HWA 502
 - Rated Current : HP4284+42841A or WK3260B+WK3265B



Standard Specifications

| Stamp | Inductance (μH) | Isat (A) | | | | | | | |
|-------|-----------------|----------|---------|-----------|-----------|-----------|----------|----------|----------|
| | | SCDS 73 | SCDS 74 | SCDS 103R | SCDS 104R | SCDS 105R | SCDS 124 | SCDS 125 | SCDS 127 |
| R80 | 0.8 | | | | | 13.5 | | | |
| 1R0 | 1.0 | | | | 11 | | | | |
| 1R2 | 1.2 | | | | | | | | 9.80 |
| 1R5 | 1.5 | 4.00 | 5.00 | | 10. | 10.5 | | | 9.50 |
| 1R8 | 1.8 | | 4.00 | | 8.5 | | | | |
| 2R2 | 2.2 | 4.00 | 3.50 | | 7.5 | 9.25 | | | 8.00 |
| 2R4 | 2.4 | | | | | | | | 8.00 |
| 2R5 | 2.5 | | | | 7.5 | | | | |
| 2R7 | 2.7 | | 3.50 | | | | | | |
| 3R3 | 3.3 | 3.70 | 3.50 | | 6.0 | 7.8 | 6.50 | 8.00 | 7.50 |
| 3R5 | 3.5 | | | | | | | | 7.50 |
| 3R8 | 3.8 | | | | 6.0 | | | | |
| 3R9 | 3.9 | | | | | | 6.50 | | |
| 4R7 | 4.7 | | 3.00 | 4.65 | 5.7 | 6.40 | 5.70 | 7.60 | 6.80 |
| 5R2 | 5.2 | | | | 5.5 | | | | |
| 5R6 | 5.6 | | | | 5.0 | | | | |
| 6R1 | 6.1 | | | | | | | | 6.60 |
| 6R4 | 6.4 | | | | | | | 5.8 | |
| 6R8 | 6.8 | 2.00 | 2.50 | 3.84 | 5.0 | 5.40 | 4.90 | | 6.20 |
| 7R0 | 7.0 | | | | 4.8 | | | | |
| 7R6 | 7.6 | | | | | | | | 5.90 |
| 8R2 | 8.2 | | | | 4.5 | 4.85 | | 5.00 | |
| 100 | 10 | 1.68 | 1.84 | 3.18 | 4.4 | 4.45 | 4.50 | 4.00 | 5.40 |
| 120 | 12 | 1.52 | 1.71 | | | 4.00 | 4.00 | 3.50 | 4.90 |
| 150 | 15 | 1.33 | 1.47 | 2.60 | 3.6 | 3.60 | 3.20 | 3.30 | 4.50 |
| 180 | 18 | 1.20 | 1.31 | | 3.5 | 3.20 | 3.10 | 3.00 | 3.90 |
| 220 | 22 | 1.07 | 1.23 | | 2.9 | 2.95 | 2.90 | 2.80 | 3.60 |
| 270 | 27 | 0.96 | 1.12 | | 2.5 | 2.70 | 2.80 | 2.30 | 3.40 |
| 330 | 33 | 0.91 | 0.96 | 1.74 | 2.3 | 2.50 | 2.70 | 2.10 | 3.00 |
| 390 | 39 | 0.77 | 0.91 | | 2.1 | 2.30 | 2.10 | 2.00 | 2.75 |
| 470 | 47 | 0.76 | 0.88 | 1.43 | 2.1 | 2.00 | 1.90 | 1.80 | 2.50 |
| 560 | 56 | 0.68 | 0.75 | | 1.6 | 1.90 | 1.80 | 1.70 | 2.35 |
| 680 | 68 | 0.61 | 0.69 | | 1.5 | 1.65 | 1.50 | 1.50 | 2.10 |
| 820 | 82 | 0.57 | 0.61 | | 1.35 | 1.50 | 1.30 | 1.40 | 1.95 |
| 101 | 100 | 0.50 | 0.60 | | 1.35 | 1.35 | 1.20 | 1.30 | 1.70 |
| 121 | 120 | 0.49 | 0.52 | | | 1.28 | 1.10 | 1.10 | 1.60 |
| 151 | 150 | 0.43 | 0.46 | | 1.15 | 1.12 | 0.95 | 1.00 | 1.42 |
| 181 | 180 | 0.39 | 0.42 | | | 1.04 | 0.85 | 0.90 | 1.30 |
| 201 | 200 | | | | 0.92 | | | | |
| 221 | 220 | 0.35 | 0.36 | | 0.92 | 0.94 | 0.80 | 0.80 | 1.16 |
| 271 | 270 | 0.32 | 0.34 | | | 0.84 | 0.60 | 0.75 | 1.06 |
| 331 | 330 | 0.28 | 0.32 | | 0.70 | 0.75 | 0.50 | 0.68 | 0.95 |
| 391 | 390 | 0.26 | 0.29 | | | 0.70 | | 0.65 | 0.88 |
| 471 | 470 | 0.24 | 0.26 | | 0.50 | 0.60 | | 0.58 | 0.79 |
| 561 | 560 | 0.22 | 0.23 | | | 0.54 | | 0.54 | 0.73 |
| 681 | 680 | 0.19 | 0.22 | | | 0.52 | | 0.48 | 0.67 |
| 821 | 820 | 0.18 | 0.20 | | | 0.50 | | 0.43 | 0.60 |
| 102 | 1000 | 0.16 | 0.18 | | | 0.48 | | 0.40 | 0.55 |

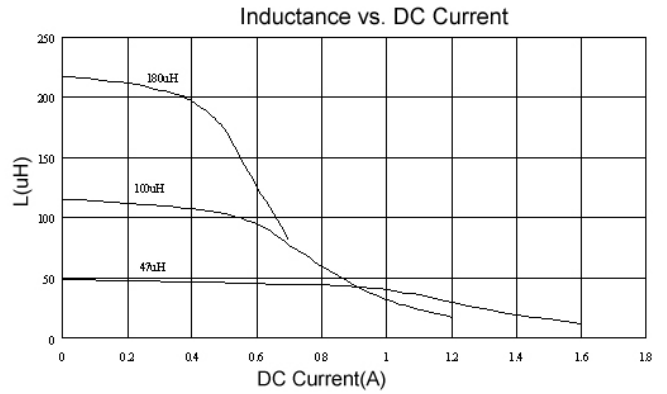
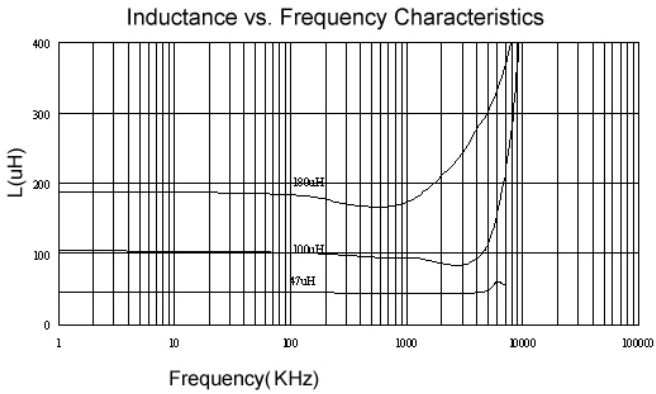
Tolerance Of Inductors

- SCDS 73 1.5 ~ 1000uH ± 20%
- SCDS 74 1.5 ~ 1000uH ± 20%
- SCDS 103R 4.7~47uH ± 30%
- SCDS 104R 1.0 ~ 470uH ± 30%
- SCDS 105R 0.8 ~ 1000uH ± 30%
- Tolerance : M = ±20% , T = ±30% , N = ⁺⁴⁰/₋₂₀%
- SCDS 124 3.3 ~ 330uH ±20%
- SCDS 125 3.3 ~ 1000uH ± 20%
- SCDS 127 1.2 ~ 7.6uH ⁺⁴⁰/₋₂₀%
- SCDS 127 10 ~ 1000uH ± 20%

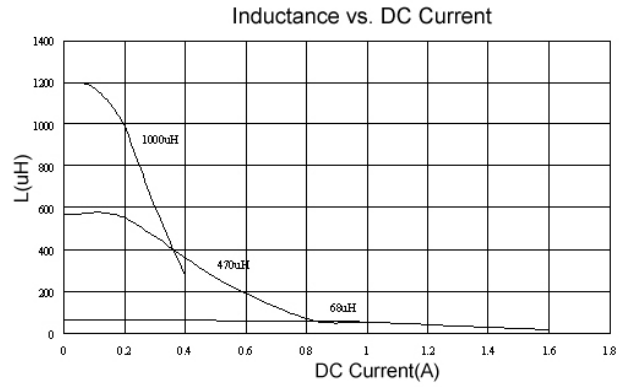
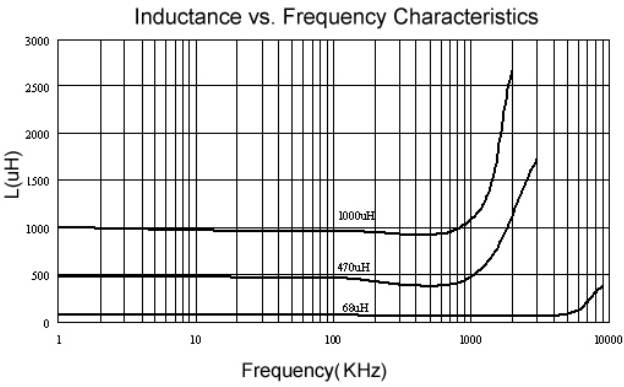
Curves of SCDS Series

Test Instruments : HP4294 Impedance / Material Analyzer

SCDS73

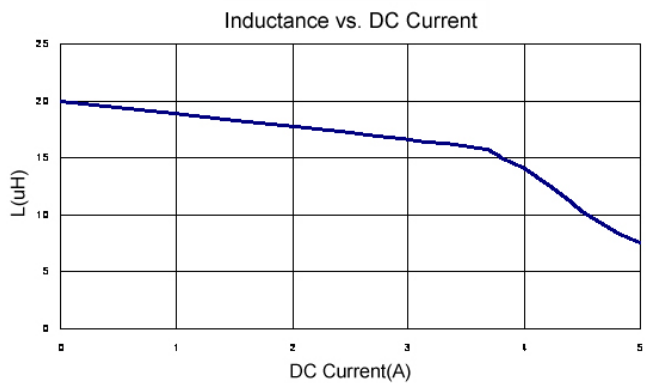
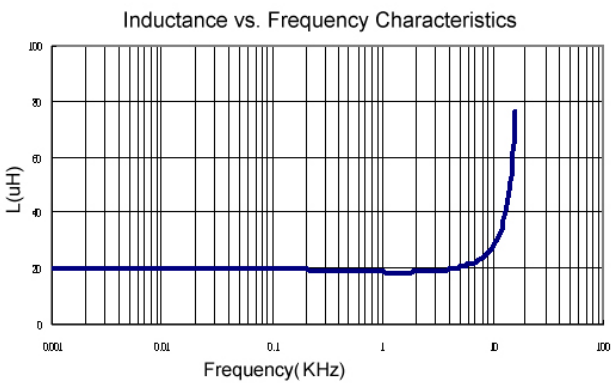


SCDS74

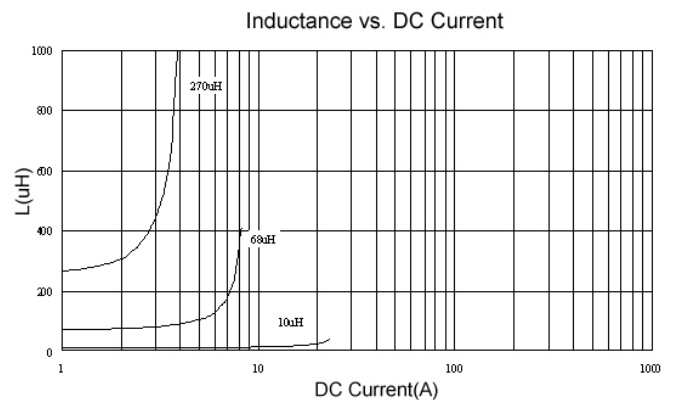
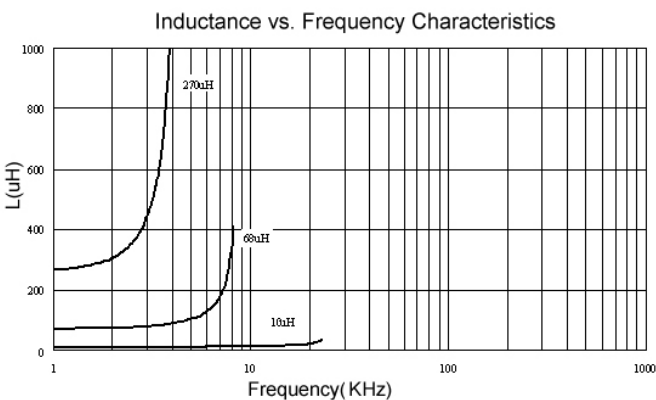


Test Instruments : HP4294 Impedance / Material Analyzer

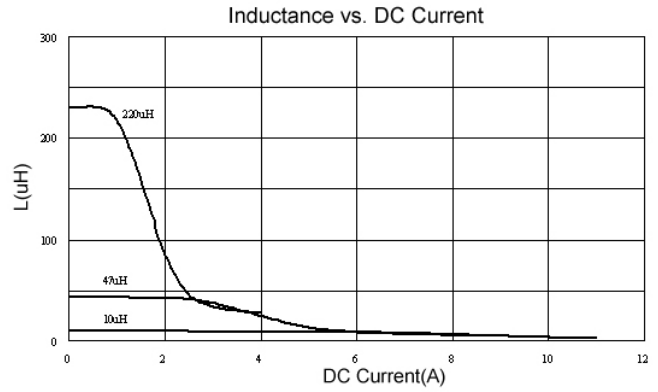
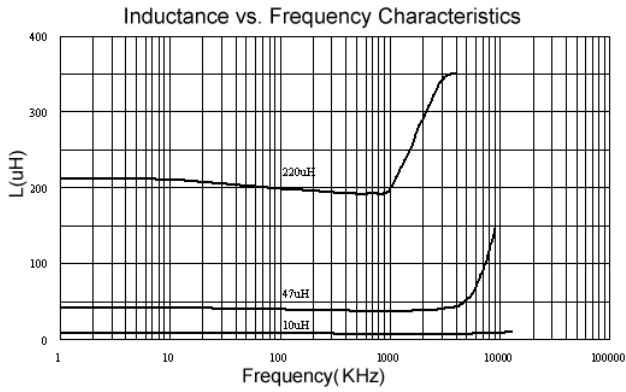
SCDS104R



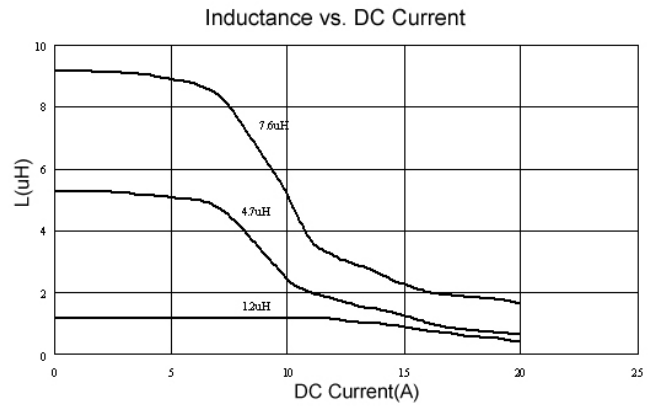
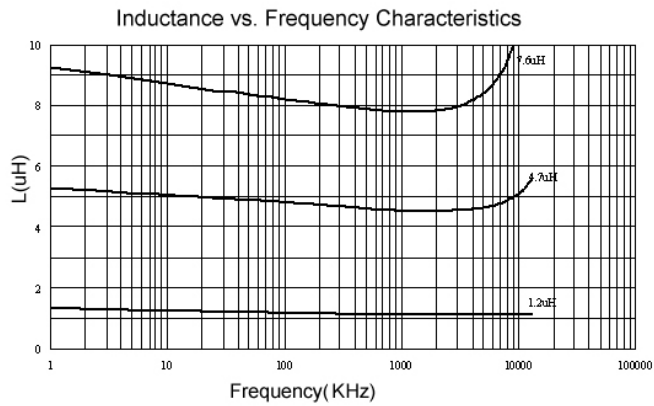
SCDS124



SCDS125

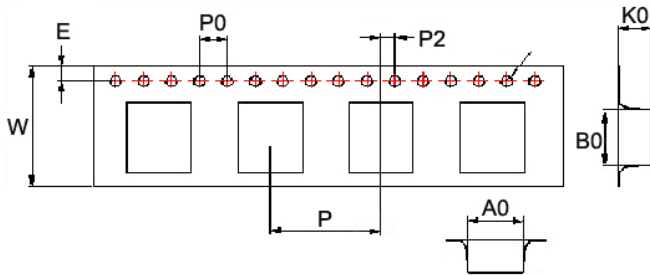


SCDS127

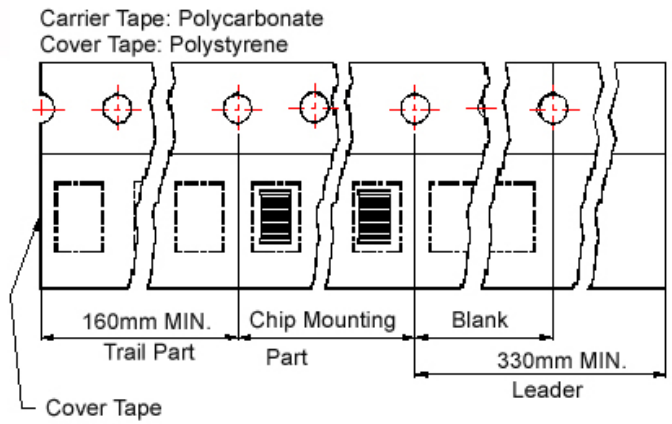


Packaging Specifications

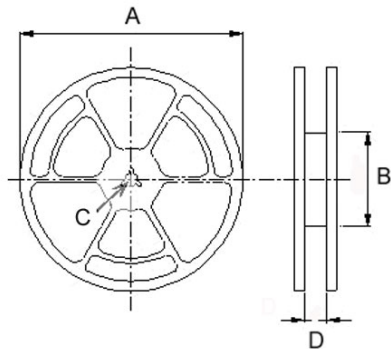
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | | | Reel Dimensions | | | | Quantity PCS / REEL |
|-----------|-----------------|-------|-----|------|------|----|----|----|----|-----------------|-----|----|------|------------------------|
| | A0 | B0 | K0 | D | E | W | P | P0 | P2 | A | B | C | D | |
| SCDS 73 | 7.6 | 7.6 | 3.6 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16.0 | 1600 |
| SCDS 74 | 7.6 | 7.6 | 5.0 | 1.55 | 1.75 | 16 | 12 | 4 | 2 | 330 | 100 | 13 | 16.0 | 1000 |
| SCDS 103R | 10.6 | 10.75 | 4.2 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 300 | 100 | 13 | 24.4 | 1000 |
| SCDS 104R | 10.6 | 10.75 | 4.2 | 1.5 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 1000 |
| SCDS 105R | 10.6 | 10.6 | 5.0 | 1.5 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 500 |
| SCDS 124 | 13.0 | 12.8 | 5.1 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 500 |
| SCDS 125 | 12.6 | 12.6 | 6.7 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 600 |
| SCDS 127 | 12.6 | 12.6 | 8.7 | 1.55 | 1.75 | 24 | 16 | 4 | 2 | 330 | 100 | 13 | 24.4 | 500 |