

## SDC104R SERIES

### SMD Shielded Power Inductors



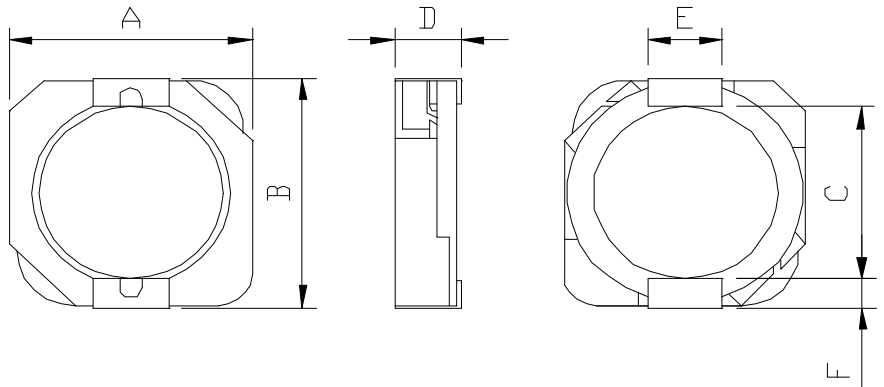
RoHS Compliant

#### PART NUMBERING SYSTEM

| <u>SDC</u> | <u>104R</u> | — | <u>7R0N</u> | — | <u>LF</u> |
|------------|-------------|---|-------------|---|-----------|
| TYPE       | DIMENSIONS  |   | INDUCTANCE  |   | LEAD FREE |

#### SHAPES AND DIMENSIONS

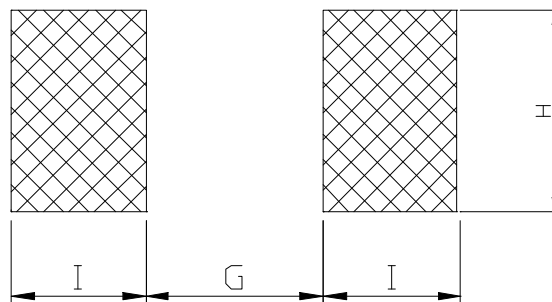
UNIT : mm



A=10.3 max. B=10.4 max. C=7.70 REF D=4.0 max. E=3.0 REF F=1.2 REF

#### RECOMMENDED PATTERNS

UNIT : mm



H= 3.20 G= 7.30 I = 1.60 J =1.60

#### FEATURES

- Low profile ( 4.0mm max. height ) and 10.3mmx10.5mm max. square.
- Magnetically shielded and low DC resistance ..
- Ideal for a variety of DC-DC converter inductor , LCD panels , DVD players Computer and portable power devices applications .

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### ELECTRICAL CHARACTERISTICS :

| PART NUMBER     | INDUCTANCE<br>( $\mu$ H) | DCR (m $\Omega$ )<br>(Max.) | Isat (A)<br>( Max. ) | Irms (A)<br>( Max. ) | TEST FREQ.<br>( f ) |
|-----------------|--------------------------|-----------------------------|----------------------|----------------------|---------------------|
| SDC104R-1R5N-LF | 1.5 $\pm$ 30%            | 8.1                         | 10.0                 | 6.50                 | 100KHz 1V           |
| SDC104R-2R5N-LF | 2.5 $\pm$ 30%            | 10.5                        | 7.50                 | 6.10                 | 100KHz 1V           |
| SDC104R-3R8N-LF | 3.8 $\pm$ 30%            | 13.0                        | 6.00                 | 5.50                 | 100KHz 1V           |
| SDC104R-5R2N-LF | 5.2 $\pm$ 30%            | 22.0                        | 5.50                 | 5.40                 | 100KHz 1V           |
| SDC104R-7R0N-LF | 7.0 $\pm$ 30%            | 27.0                        | 4.80                 | 4.50                 | 100KHz 1V           |
| SDC104R-100N-LF | 10 $\pm$ 30%             | 35.0                        | 4.40                 | 3.80                 | 100KHz 1V           |
| SDC104R-120N-LF | 12 $\pm$ 30%             | 46.0                        | 3.70                 | 3.40                 | 100KHz 1V           |
| SDC104R-150N-LF | 15 $\pm$ 30%             | 50.0                        | 3.60                 | 3.10                 | 100KHz 1V           |
| SDC104R-180N-LF | 18 $\pm$ 30%             | 69.0                        | 3.10                 | 2.60                 | 100KHz 1V           |
| SDC104R-220N-LF | 22 $\pm$ 30%             | 73.0                        | 2.90                 | 2.50                 | 100KHz 1V           |
| SDC104R-270N-LF | 27 $\pm$ 30%             | 88.0                        | 2.60                 | 2.30                 | 100KHz 1V           |
| SDC104R-330N-LF | 33 $\pm$ 30%             | 93.0                        | 2.30                 | 2.20                 | 100KHz 1V           |
| SDC104R-390N-LF | 39 $\pm$ 30%             | 127                         | 2.20                 | 2.00                 | 100KHz 1V           |
| SDC104R-470N-LF | 47 $\pm$ 30%             | 128                         | 2.10                 | 1.90                 | 100KHz 1V           |
| SDC104R-560N-LF | 56 $\pm$ 30%             | 188                         | 1.65                 | 1.50                 | 100KHz 1V           |
| SDC104R-680N-LF | 68 $\pm$ 30%             | 213                         | 1.50                 | 1.42                 | 100KHz 1V           |
| SDC104R-820N-LF | 82 $\pm$ 30%             | 283                         | 1.45                 | 1.30                 | 100KHz 1V           |
| SDC104R-101N-LF | 100 $\pm$ 30%            | 304                         | 1.35                 | 1.25                 | 100KHz 1V           |
| SDC104R-121N-LF | 120 $\pm$ 30%            | 375                         | 1.20                 | 1.08                 | 100KHz 1V           |
| SDC104R-151N-LF | 150 $\pm$ 30%            | 506                         | 1.15                 | 0.85                 | 100KHz 1V           |
| SDC104R-181N-LF | 180 $\pm$ 30%            | 568                         | 1.00                 | 0.75                 | 100KHz 1V           |
| SDC104R-221N-LF | 220 $\pm$ 30%            | 756                         | 0.92                 | 0.70                 | 100KHz 1V           |
| SDC104R-271N-LF | 270 $\pm$ 30%            | 853                         | 0.84                 | 0.55                 | 100KHz 1V           |
| SDC104R-331N-LF | 330 $\pm$ 30%            | 1090                        | 0.70                 | 0.52                 | 100KHz 1V           |

- Isat : DC current at which the inductance drops 35% (typ) from its value without current.
- Irms: The actual current when temperature of coil becomes  $\Delta 40^{\circ}\text{C}$  . ( Ta=+25 $^{\circ}\text{C}$  )
- Operating temperature range from -40 $^{\circ}\text{C}$  to +125 $^{\circ}\text{C}$  , Electrical specifications at 25 $^{\circ}\text{C}$ .
- **PLATING / SOLDER : TIN-SILVER-COPPER (95.5%/4.0%/0.5%)**

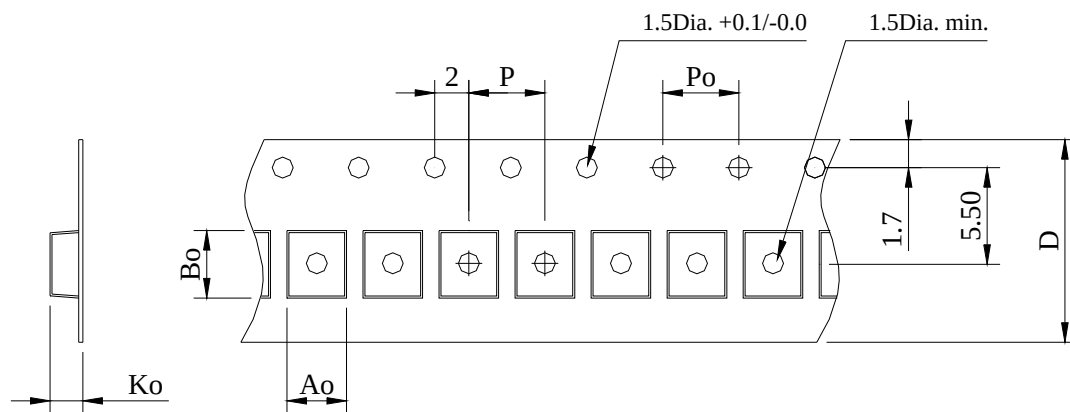
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### PACKAGING SPECIFICATION



| STAYLE | Q' TY<br>(PCS) | DIMENSIONS (m/m) |      |     |      |      |       |
|--------|----------------|------------------|------|-----|------|------|-------|
|        |                | Ao               | Bo   | Ko  | P    | Po   | D±0.3 |
| 13"    | 1,000          | 10.4             | 10.4 | 4.1 | 16.0 | 4.00 | 24.0  |