

SMD Power Inductors - SDO5040 SERIES

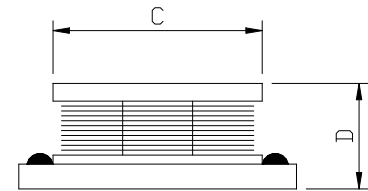
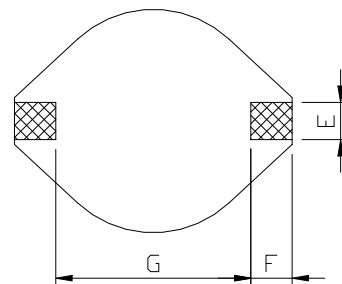
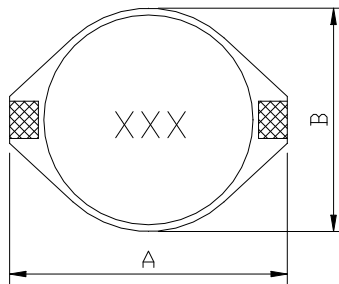


PART NUMBERING SYSTEM

| | | | | | |
|------------|-------------|---|-------------|---|-----------|
| SDO | 5040 | — | 680M | — | LF |
| TYPE | DIMENSIONS | | INDUCTANCE | | LEAD FREE |

SHAPES AND DIMENSIONS

UNIT : mm

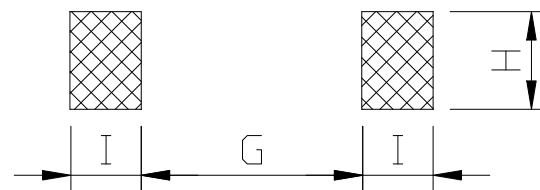


A=18.54 Max. B=15.24 Max. C=12.70 Dia. D=11.43 Max. E=2.54 F=2.54 G=12.7

RECOMMENDED PATTERNS

UNIT : mm

G=12.7 H=2.79 I=2.92



FEATURES

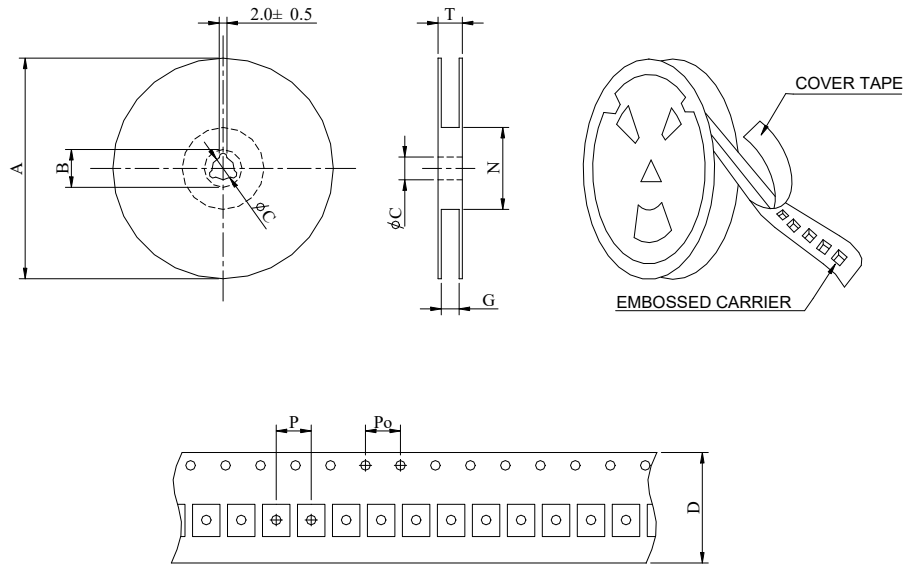
- Designed for **high-current, low-voltage DC-DC converters**
- **Saturation current ratings** as high as **33.4 A**
- Inductance values **2.8 μH to 1.4 mH**
- **Exceptionally low DCR**
- **RoHS-compliant.** 260°C compatible. Tin-silver over copper terminations.

SPECIFICATION TABLE

| PART NUMBER | INDUCTANCE (μ H) | DCR (m Ω) (Max.) | Isat (A) (Max.) | Irms (A) (Max.) | SRF(MHz) (Ref.) |
|-----------------|--------------------------|-----------------------------|----------------------|----------------------|--------------------|
| SDO5040-2R8M-LF | 2.8 \pm 20% | 5.2 | 33.4 | 12.1 | 65 |
| SDO5040-3R9M-LF | 3.9 \pm 20% | 6.0 | 26.8 | 11.2 | 40 |
| SDO5040-6R8M-LF | 6.8 \pm 20% | 9.0 | 22.5 | 9.6 | 30 |
| SDO5040-100M-LF | 10 \pm 20% | 11 | 17.8 | 8.6 | 22 |
| SDO5040-120M-LF | 12 \pm 20% | 13 | 15.9 | 7.4 | 21 |
| SDO5040-150M-LF | 15 \pm 20% | 20 | 13.8 | 6.5 | 18 |
| SDO5040-180M-LF | 18 \pm 20% | 22 | 13.2 | 6.0 | 14 |
| SDO5040-220M-LF | 22 \pm 20% | 24 | 11.8 | 5.7 | 13 |
| SDO5040-330M-LF | 33 \pm 20% | 37 | 9.6 | 4.5 | 10 |
| SDO5040-470M-LF | 47 \pm 20% | 52 | 7.8 | 3.7 | 8.0 |
| SDO5040-680M-LF | 68 \pm 20% | 67 | 6.7 | 3.4 | 7.0 |
| SDO5040-101M-LF | 100 \pm 20% | 115 | 5.6 | 2.8 | 6.0 |
| SDO5040-331M-LF | 330 \pm 20% | 325 | 3.0 | 1.5 | 3.0 |
| SDO5040-681M-LF | 680 \pm 20% | 780 | 2.0 | 1.1 | 1.6 |
| SDO5040-142M-LF | 1400 \pm 20% | 1300 | 1.5 | 0.7 | 1.0 |

- Inductors tolerance M= \pm 20%.
- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc .
- DC current at which the inductance drops 10% (typ) from its value without current.
- Operating temperature range -40 $^{\circ}$ C to +125 $^{\circ}$ C .
- Electrical specifications at 25 $^{\circ}$ C .
- Packing : 13" reel, machine-ready ,embossed plastic tape (160 parts per full reel).

PACKAGING SPECIFICATION



| SERIES | STAYLE | Q'TY (PCS) | DIMENSIONS (m/m) | | | | | | | | |
|---------|--------|------------|------------------|-------|-------|----|-----------------|----------------|----|----|------|
| | | | A | B±0.8 | C±0.5 | D | G ⁺⁰ | N ⁰ | P | Po | T |
| SDO5040 | 13-32 | 175 | 330 | 21 | 13 | 32 | 34 | 100 | 20 | 4 | 38.4 |