

## New Product

### SURFACE MOUNT SHIELDED POWER INDUCTOR SERIES SDB8450

#### FEATURES

- RoHS compliant
- High current handling capacity in a shielded package
- Easy to use in any design
- Ideal for use in laptops, communication systems and MP3 players

#### ELECTRICAL SPECIFICATIONS

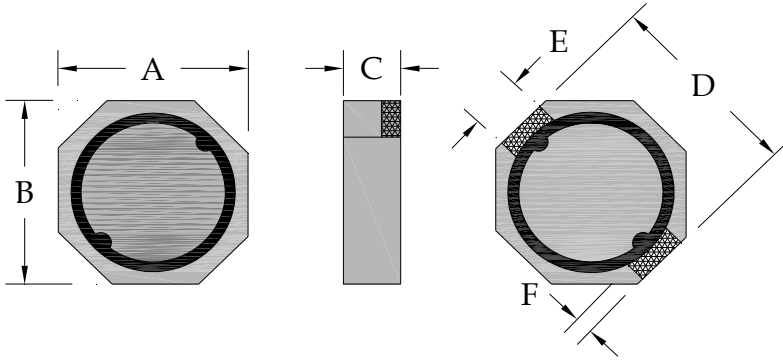
- Inductance range 1uH to 47mH
- Test condition (1uH - 8.2uH) 100kHz @ 0.25Vrms
- Test condition (10uH - 47mH) 1kHz @ 0.25Vrms
- Test equipment Quadtech 1750 LCR Meter

#### PHYSICAL SPECIFICATIONS

- Operating temp. -25°C to +105°C
- Core Ferrite
- Packaging T & R 350 or 1500 pieces per reel
- Tape & reel spec. Tape 12 mm embossed carrier
- Reel 178 or 330 mm dia

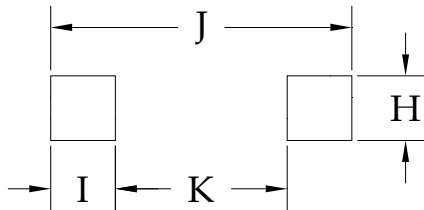
#### Dimensions in millimeters

- Length A 8.3 max
- Width B 8.3 max
- Height C 4.5 max
- D 8.9 ± 0.3
- Term width E 2.5 ref
- Term length F 0.8 ref



#### Suggested PCB land pattern

- H = 2.8
- I = 1.7
- J = 9.5
- K = 6.1



#### Notes:

1. Based on  $\Delta L$  of 30% max or  $\Delta T$  of 40°C max, whichever occurs first
2. All test data based on 25°C ambient. Part temperature (max ambient + temp rise) must not exceed 105°C under worst case operating conditions. Circuit design, other components, PCB trace size and thickness, airflow and other cooling provisions all effect the part temperature.

#### SPECIFICATIONS

| Part Number  | L(uH) | Tol % ± | DCR (ohms) max | Rated Current (A) (Note 1) |
|--------------|-------|---------|----------------|----------------------------|
| SDB8450-1R0M | 1.0   | 20      | 0.010          | 8.71                       |
| SDB8450-1R5M | 1.5   | 20      | 0.012          | 7.78                       |
| SDB8450-2R2M | 2.2   | 20      | 0.015          | 6.15                       |
| SDB8450-3R0M | 3.0   | 20      | 0.016          | 5.45                       |
| SDB8450-3R3M | 3.3   | 20      | 0.017          | 5.10                       |
| SDB8450-3R9M | 3.9   | 20      | 0.019          | 5.00                       |
| SDB8450-4R7M | 4.7   | 20      | 0.022          | 4.60                       |
| SDB8450-5R6M | 5.6   | 20      | 0.024          | 4.30                       |
| SDB8450-6R8M | 6.8   | 20      | 0.025          | 4.20                       |
| SDB8450-8R2M | 8.2   | 20      | 0.031          | 3.70                       |
| SDB8450-100M | 10    | 20      | 0.036          | 3.60                       |
| SDB8450-120M | 12    | 20      | 0.046          | 2.70                       |
| SDB8450-150M | 15    | 20      | 0.053          | 2.60                       |
| SDB8450-180M | 18    | 20      | 0.073          | 2.15                       |
| SDB8450-220M | 22    | 20      | 0.075          | 2.10                       |
| SDB8450-270M | 27    | 20      | 0.110          | 1.70                       |
| SDB8450-330M | 33    | 20      | 0.125          | 1.60                       |
| SDB8450-390M | 39    | 20      | 0.14           | 1.50                       |
| SDB8450-470M | 47    | 20      | 0.15           | 1.40                       |
| SDB8450-560M | 56    | 20      | 0.21           | 1.20                       |
| SDB8450-680M | 68    | 20      | 0.23           | 1.15                       |
| SDB8450-820M | 82    | 20      | 0.28           | 1.03                       |
| SDB8450-101M | 100   | 20      | 0.36           | 0.94                       |
| SDB8450-121M | 120   | 20      | 0.44           | 0.86                       |
| SDB8450-151M | 150   | 20      | 0.49           | 0.78                       |
| SDB8450-181M | 180   | 20      | 0.60           | 0.72                       |
| SDB8450-221M | 220   | 20      | 0.76           | 0.62                       |
| SDB8450-271M | 270   | 20      | 0.87           | 0.56                       |
| SDB8450-331M | 330   | 20      | 1.05           | 0.52                       |
| SDB8450-391M | 390   | 20      | 1.22           | 0.47                       |
| SDB8450-471M | 470   | 20      | 1.53           | 0.44                       |
| SDB8450-561M | 560   | 20      | 1.86           | 0.41                       |
| SDB8450-681M | 680   | 20      | 2.10           | 0.37                       |
| SDB8450-821M | 820   | 20      | 2.61           | 0.33                       |
| SDB8450-102M | 1000  | 20      | 3.34           | 0.30                       |
| SDB8450-122M | 1200  | 20      | 3.74           | 0.28                       |
| SDB8450-152M | 1500  | 20      | 4.92           | 0.25                       |
| SDB8450-222M | 2200  | 20      | 7.89           | 0.19                       |
| SDB8450-272M | 2700  | 20      | 8.96           | 0.17                       |
| SDB8450-332M | 3300  | 20      | 10.0           | 0.16                       |
| SDB8450-392M | 3900  | 20      | 12.3           | 0.15                       |
| SDB8450-472M | 4700  | 20      | 14.8           | 0.12                       |
| SDB8450-562M | 5600  | 20      | 17.1           | 0.11                       |
| SDB8450-682M | 6800  | 20      | 23.3           | 0.10                       |
| SDB8450-822M | 8200  | 20      | 28.4           | 0.096                      |
| SDB8450-103M | 10000 | 20      | 35.8           | 0.084                      |
| SDB8450-123M | 12000 | 20      | 44.8           | 0.082                      |
| SDB8450-153M | 15000 | 20      | 50.8           | 0.074                      |
| SDB8450-183M | 18000 | 20      | 65.9           | 0.068                      |
| SDB8450-223M | 22000 | 20      | 85.4           | 0.064                      |
| SDB8450-273M | 27000 | 20      | 112.4          | 0.060                      |
| SDB8450-333M | 33000 | 20      | 146.0          | 0.050                      |
| SDB8450-393M | 39000 | 20      | 150.0          | 0.047                      |
| SDB8450-473M | 47000 | 20      | 1              |                            |