

## New Product

**SURFACEMOUNT  
POWER INDUCTOR  
SERIES NSCD6520**

### 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

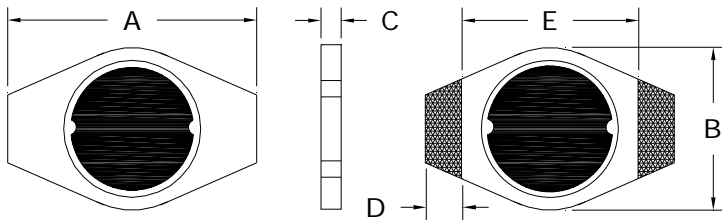
- Inductance range 1uH to 2.7mH
- Test condition (1uH - 8.2uH) 100kHz @ 0.25Vrms
- Test condition (10uH - 2.7mH) 1kHz @ 0.25Vrms
- Test equipment Quadtech 1750 LCR Meter

### PHYSICAL SPECIFICATIONS

- Operating temp. -25°C to +105°C
- Core Ferrite
- Packaging T & R 2500 pieces per reel
- Tape & reel spec. Tape 16 mm embossed carrier  
Reel 330 mm

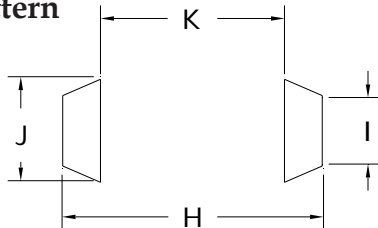
### Dimensions in millimeters

- Length A 6.6 ± 0.5
- Width B 5.5 ± 0.2
- Height C 2.0 ± 0.3
- Terminal length D 0.85 ref
- Terminal pitch E 4.9 ref



### Suggested PCB land pattern

- H = 6.9
- I = 2.5
- J = 3.8
- K = 4.7



**Notes:**

1. Based on ΔL of 10% max
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 | Saturation Current (A) (Note 1) |
|---------------|-------|---------|----------------|---------------------------------|
| NSCD6520-1R0M | 1.0   | 20      | 0.05           | 2.90                            |
| NSCD6520-1R5M | 1.5   | 20      | 0.06           | 2.80                            |
| NSCD6520-2R2M | 2.2   | 20      | 0.07           | 2.40                            |
| NSCD6520-3R3M | 3.3   | 20      | 0.08           | 2.00                            |
| NSCD6520-4R7M | 4.7   | 20      | 0.09           | 1.50                            |
| NSCD6520-5R6M | 5.6   | 20      | 0.12           | 1.42                            |
| NSCD6520-6R8M | 6.8   | 20      | 0.13           | 1.40                            |
| NSCD6520-8R2M | 8.2   | 20      | 0.15           | 1.15                            |
| NSCD6520-100M | 10    | 20      | 0.16           | 1.10                            |
| NSCD6520-120M | 12    | 20      | 0.22           | 1.05                            |
| NSCD6520-150M | 15    | 20      | 0.23           | 1.00                            |
| NSCD6520-180M | 18    | 20      | 0.35           | 0.82                            |
| NSCD6520-220M | 22    | 20      | 0.37           | 0.80                            |
| NSCD6520-270M | 27    | 20      | 0.45           | 0.63                            |
| NSCD6520-330M | 33    | 20      | 0.51           | 0.60                            |
| NSCD6520-390M | 39    | 20      | 0.62           | 0.52                            |
| NSCD6520-470M | 47    | 20      | 0.64           | 0.50                            |
| NSCD6520-560M | 56    | 20      | 0.85           | 0.43                            |
| NSCD6520-680M | 68    | 20      | 0.86           | 0.40                            |
| NSCD6520-820M | 82    | 20      | 1.24           | 0.36                            |
| NSCD6520-101M | 100   | 20      | 1.27           | 0.30                            |
| NSCD6520-121M | 120   | 20      | 1.75           | 0.28                            |
| NSCD6520-151M | 150   | 20      | 2.00           | 0.25                            |
| NSCD6520-181M | 180   | 20      | 2.60           | 0.22                            |
| NSCD6520-221M | 220   | 20      | 2.65           | 0.20                            |
| NSCD6520-271M | 270   | 20      | 3.70           | 0.18                            |
| NSCD6520-331M | 330   | 20      | 3.80           | 0.16                            |
| NSCD6520-391M | 390   | 20      | 5.00           | 0.15                            |
| NSCD6520-471M | 470   | 20      | 6.85           | 0.15                            |
| NSCD6520-561M | 560   | 20      | 9.10           | 0.13                            |
| NSCD6520-681M | 680   | 20      | 9.20           | 0.12                            |
| NSCD6520-821M | 820   | 20      | 13.50          | 0.08                            |
| NSCD6520-102M | 1000  | 20      | 13.80          | 0.07                            |
| NSCD6520-122M | 1200  | 20      | 22.56          | 0.065                           |
| NSCD6520-152M | 1500  | 20      | 26.47          | 0.060                           |
| NSCD6520-182M | 1800  | 20      | 33.26          | 0.058                           |
| NSCD6520-222M | 2200  | 20      | 38.00          | 0.055                           |
| NSCD6520-272M | 2700  | 20      | 45.99          | 0.050                           |