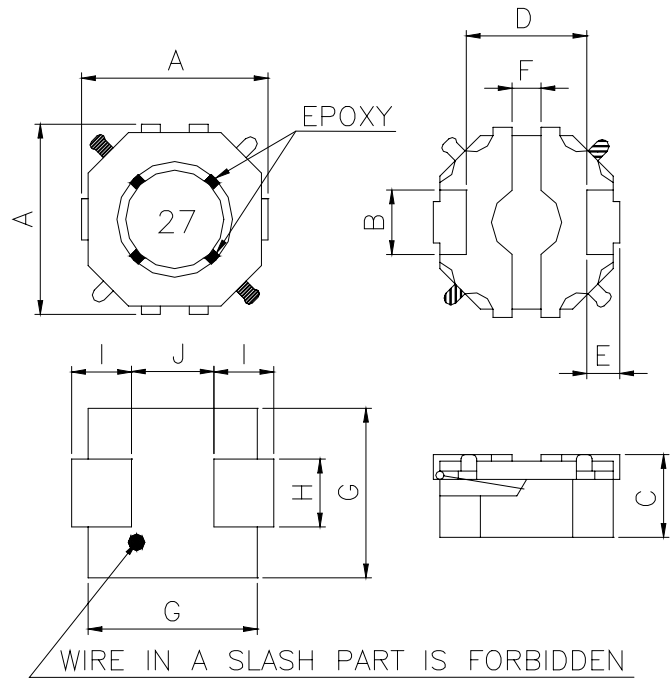


Shielded SMD Power Inductor – SCDB



Features

- New designed terminal for low cost
- Low profile and high current
- Magnetically shielded construction
- Ideal for digital equipment and hand phone of new generation.

Applications

- DSD, DVC, PDA Products
- Hand Phone Of New Generation
- Hard Disk Drives

Characteristics

- Saturation Rated Current: The current when the inductance becomes 30% lower than its initial value. (Ta=20°C)
- Temperature Rise Current: The current when temperature of coil increases up to Max. Δt=40°C. (Ta=20°C)
- Operating temperature range: -40~85°C

Dimensions

Unit: mm

| Type | A | B | C max. | D | E | F | G | H | I | J |
|----------|---------|-----|--------|-----|-----|-----|-----|-----|-----|-----|
| SCDB2D12 | 3.0±0.2 | 1.0 | 1.2 | 2.0 | 0.5 | 0.5 | 3.2 | 1.2 | 1.1 | 1.8 |
| SCDB2D15 | 3.0±0.2 | 1.0 | 1.5 | 2.0 | 0.5 | 0.5 | 3.2 | 1.2 | 1.1 | 1.8 |
| SCDB2D18 | 3.0±0.2 | 1.0 | 1.8 | 2.0 | 0.5 | 0.5 | 3.2 | 1.2 | 1.1 | 1.8 |

Inductance and rated current ranges

- SCDB2D12 1.2~22μH 0.85~0.22A
- SCDB2D15 2.2~33μH 1.00~0.25A
- SCDB2D18 2.2~47μH 1.10~0.23A
- Electrical specifications at 25°C

Product Identification

| SCDB | 2D12 | M | T | 101 |
|--------------|---|--------------------|------------------|---------------------------------------|
| Product Type | Dimensions (AxBxC) | Inductor Tolerance | Packaging Style | Inductance |
| | 2D12: 3x3x1.2 2D15: 3x3x1.5 2D18: 3x3x1.8 | M: ±20% N: ±30% | T: Tape and Reel | 1R1: 1.1μH 470: 47μH 101: 100μH |

■ Electrical Characteristics

SCDB2D12 Type

| Codes | L (μ H) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. | | I rms (A) max. |
|-------|-----------------|-----------|-------------------|--------------------------|-----------------|-------|-------------------|
| | | | | | 20°C | 100°C | |
| 1R2 | 1.2 | N | 100KHz, 0.1V | 0.117 | 0.85 | 0.70 | 1.05 |
| 2R2 | 2.2 | N | 100KHz, 0.1V | 0.182 | 0.70 | 0.60 | 0.90 |
| 3R3 | 3.3 | N | 100KHz, 0.1V | 0.260 | 0.60 | 0.50 | 0.82 |
| 4R7 | 4.7 | N | 100KHz, 0.1V | 0.312 | 0.50 | 0.40 | 0.72 |
| 5R6 | 5.6 | N | 100KHz, 0.1V | 0.442 | 0.46 | 0.35 | 0.67 |
| 6R8 | 6.8 | N | 100KHz, 0.1V | 0.520 | 0.43 | 0.30 | 0.62 |
| 8R2 | 8.2 | N | 100KHz, 0.1V | 0.560 | 0.38 | 0.28 | 0.58 |
| 100 | 10 | M | 100KHz, 0.1V | 0.780 | 0.33 | 0.25 | 0.55 |
| 220 | 22 | M | 100KHz, 0.1V | 1.650 | 0.22 | - | - |

SCDB2D15 Type

| Codes | L (μ H) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. | | I rms (A) max. |
|-------|-----------------|-----------|-------------------|--------------------------|-----------------|-------|-------------------|
| | | | | | 20°C | 100°C | |
| 2R2 | 2.2 | N | 100KHz, 0.1V | 0.150 | 1.00 | 0.80 | 1.00 |
| 3R3 | 3.3 | N | 100KHz, 0.1V | 0.234 | 0.90 | 0.70 | 0.90 |
| 4R7 | 4.7 | N | 100KHz, 0.1V | 0.338 | 0.80 | 0.60 | 0.85 |
| 5R6 | 5.6 | N | 100KHz, 0.1V | 0.364 | 0.70 | 0.55 | 0.80 |
| 6R8 | 6.8 | N | 100KHz, 0.1V | 0.416 | 0.60 | 0.52 | 0.77 |
| 8R2 | 8.2 | N | 100KHz, 0.1V | 0.572 | 0.55 | 0.48 | 0.72 |
| 100 | 10 | M | 100KHz, 0.1V | 0.624 | 0.50 | 0.45 | 0.70 |
| 120 | 12 | M | 100KHz, 0.1V | 0.702 | 0.45 | 0.40 | 0.65 |
| 150 | 15 | M | 100KHz, 0.1V | 0.949 | 0.40 | 0.35 | 0.50 |
| 180 | 18 | M | 100KHz, 0.1V | 1.090 | 0.35 | 0.30 | 0.40 |
| 220 | 22 | M | 100KHz, 0.1V | 1.250 | 0.30 | 0.25 | 0.30 |
| 330 | 33 | M | 100KHz, 0.1V | 2.200 | 0.25 | - | 0.25 |

SCDB2D18 Type

| Codes | L (μ H) | Tolerance | Test Condition | DCR (Ω) max. | IDC (A) max. | | I rms (A) max. |
|-------|-----------------|-----------|-------------------|--------------------------|-----------------|-------|-------------------|
| | | | | | 20°C | 100°C | |
| 2R2 | 2.2 | N | 100KHz, 0.1V | 0.117 | 1.10 | 0.90 | 1.10 |
| 3R3 | 3.3 | N | 100KHz, 0.1V | 0.143 | 1.00 | 0.80 | 1.00 |
| 4R7 | 4.7 | N | 100KHz, 0.1V | 0.221 | 0.80 | 0.70 | 0.90 |
| 5R6 | 5.6 | N | 100KHz, 0.1V | 0.247 | 0.75 | 0.60 | 0.85 |
| 6R8 | 6.8 | N | 100KHz, 0.1V | 0.312 | 0.70 | 0.55 | 0.82 |
| 8R2 | 8.2 | N | 100KHz, 0.1V | 0.351 | 0.60 | 0.50 | 0.78 |
| 100 | 10 | M | 100KHz, 0.1V | 0.468 | 0.55 | 0.48 | 0.75 |
| 120 | 12 | M | 100KHz, 0.1V | 0.533 | 0.50 | 0.45 | 0.65 |
| 150 | 15 | M | 100KHz, 0.1V | 0.598 | 0.45 | 0.40 | 0.55 |
| 180 | 18 | M | 100KHz, 0.1V | 0.715 | 0.40 | 0.33 | 0.50 |
| 220 | 22 | M | 100KHz, 0.1V | 0.975 | 0.38 | 0.30 | 0.45 |
| 270 | 27 | M | 100KHz, 0.1V | 1.105 | 0.33 | 0.25 | 0.40 |
| 330 | 33 | M | 100KHz, 0.1V | 1.222 | 0.30 | 0.23 | 0.33 |
| 390 | 39 | M | 100KHz, 0.1V | 1.625 | 0.25 | 0.20 | 0.28 |
| 470 | 47 | M | 100KHz, 0.1V | 1.820 | 0.23 | 0.18 | 0.25 |