

Power Inductor for Surface Mounting

Inductance Range: 0.56µH~10µH Temperature Range: −40°C~+125°C **PSM-0612** Series 7.5Max **Dimensions (mm)** 1.3Max 1.7 ± 0.3 8.4 0Max **R56M** Marking 37 3.0±0.5 **Features:** ★Quantity / Reel: 1500pcs **RoHS Compliant(SGS Certified Result)** ★High performance (Isat) realized by metal dust core. Pb PBBs **PBDEs** Cd Cr+6 ★Low profile: Thickness max. 1.3mm <1000ppm ND ND ND ND ★Low loss realized with low DCR Capable of corresponding high frequency (1MHz) ★Design to customer requirement **Configuration:** PSM - 0612 - 1R0 - M **Application:** (3) (4) (1)(2)★DC/DC converter for CPU in Notebook PC (1)Product Code(P&Z for SMD type) \star Thin type on-board power supply module for (2)Series Code(Typical dimension) exchangerVRM for server (3)Inductance: $1R0 = 1.0 \mu H$ **Electrical Characteristics:** (4) Inductance tolerance: $M = \pm 20\%$, $L = \pm 15\%$, $K = \pm 10\%$

| P&Z Part Number | DCR(mΩ) | | Heat Rating Current DC Amps. Idc (A) | Saturation Current DC Amps. Isat (A) |
|----------------------------------|---|--|--|---|
| Inductance (μH) ±20% | Typical | Maximum | Typical | Typical |
| 0.56 | 13.5 | 15.5 | 7.0 | 11.0 |
| 0.68 | 15.0 | 17.5 | 6.7 | 9.0 |
| 0.82 | 21.5 | 24.5 | 6.3 | 8.0 |
| 1.0 | 25.0 | 29.0 | 6.0 | 7.5 |
| 2.2 | 51.5 | 59.0 | 4.0 | 5.0 |
| 3.3 | 80.0 | 92.0 | 3.0 | 4.0 |
| 4.7 | 106.0 | 122.0 | 2.7 | 3.5 |
| 6.8 | 185.0 | 210.0 | 2.2 | 2.8 |
| 10.0 | 250.0 | 290.0 | 2.0 | 2.2 |
| | Inductance (μH) ±20% 0.56 0.68 0.82 1.0 2.2 3.3 4.7 6.8 | Inductance (μH) ±20% Typical 0.56 13.5 0.68 15.0 0.82 21.5 1.0 25.0 2.2 51.5 3.3 80.0 4.7 106.0 6.8 185.0 | Inductance (μ H) ±20%TypicalMaximum0.5613.515.50.6815.017.50.8221.524.51.025.029.02.251.559.03.380.092.04.7106.0122.06.8185.0210.0 | L0 @ (0A) DC R(MS2) DC Amps. Idc (A) Inductance (μH) ±20% Typical Maximum Typical 0.56 13.5 15.5 7.0 0.68 15.0 17.5 6.7 0.82 21.5 24.5 6.3 1.0 25.0 29.0 6.0 2.2 51.5 59.0 4.0 3.3 80.0 92.0 3.0 4.7 106.0 122.0 2.7 6.8 185.0 210.0 2.2 |

 \star If you require another part number please contact with us.

1.All test data is referenced to 25°C ambient. Operating. Temperature Range -55°C to + 125°C. Test Condition:100KHz, 1.0Vrms.

2.Idc:DC current (A) that will cause an approximate \triangle °CT of 40°C.

3.Isat:DC current (A) that will cause Lo to drop approximately 30%.

4. The part temperature (ambient + temp rise) should not exceed 125°C under worse case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.

5. The rated current as listed is either the saturation current or the heating current depending on which value is lower.

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