



SEP1210E SERIES~ High Current SMD Power Inductors



PART NUMBERING SYSTEM

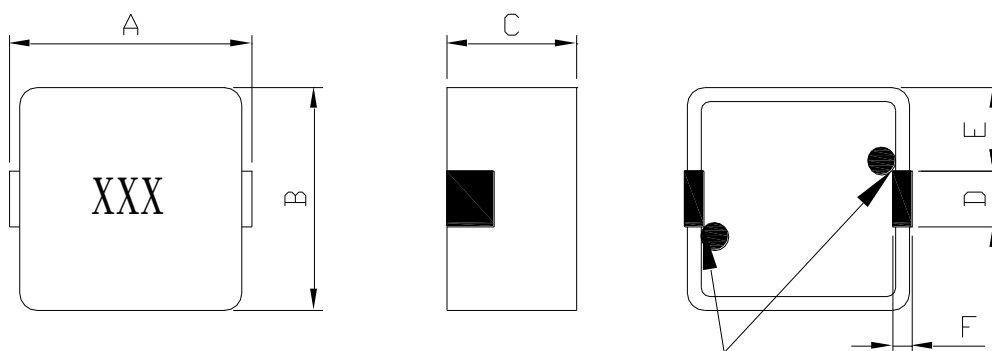
| | | | | | |
|------------|--------------|---|-------------|---|-----------|
| SEP | 1210E | — | R47M | — | LF |
| TYPE | DIMENSIONS | | INDUCTANCE | | LEAD FREE |

FEATURES :

- Magnetically shielded construction
- 125°C maximum total temperature operation
- 12.1 x 11.4 x 9.5mm surface mount package
- Halogen free
- High current carrying capacity, low core losses
- Controlled DCR tolerance for sensing circuits
- Inductance range from 220nH to 1,000nH
- Application for DC/DC converter and PDA/notebook/desktop/server .

SHAPES AND DIMENSIONS :

UNIT : mm

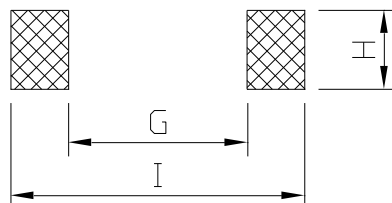


DCR is measured at the points

A=12.1±0.3 B=11.4±0.3 C=9.5±0.5 D=3.5±0.2 E=3.95 typ. F=2.0±0.2

RECOMMENDED PATTERNS

G=7.0 H= 5.4 I= 12.8





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SPECIFICATION TABLE

| PART NUMBER | INDUCTANCE (μ H) | Isat (A) (Typ.) | Irms (A) (Δ t) 40°C (Typ.) | DCR (m Ω) (Max.) | Fres (MHz) |
|------------------|--------------------------|----------------------|---|-----------------------------|---------------|
| SEP1210E-R22M-LF | 0.22 \pm 20% | 60.0 | 27.0 | 0.53 | 280 |
| SEP1210E-R33M-LF | 0.33 \pm 20% | 55.0 | 27.0 | 0.53 | 214 |
| SEP1210E-R47M-LF | 0.47 \pm 20% | 48.0 | 26.0 | 0.72 | 138 |
| SEP1210E-R68M-LF | 0.68 \pm 20% | 38.0 | 26.0 | 0.72 | 108 |
| SEP1210E-R82M-LF | 0.82 \pm 20% | 36.0 | 24.0 | 1.17 | 99 |
| SEP1210E-1R0M-LF | 1.00 \pm 20% | 32.0 | 24.0 | 1.17 | 96 |
| SEP1210E-1R5M-LF | 1.50 \pm 20% | 27.0 | 19.5 | 2.10 | 92 |
| SEP1210E-2R2M-LF | 2.20 \pm 20% | 23.0 | 18.0 | 3.05 | 64 |
| SEP1210E-3R3M-LF | 3.30 \pm 20% | 17.0 | 17.0 | 4.40 | 44 |
| SEP1210E-4R7M-LF | 4.70 \pm 20% | 17.0 | 15.5 | 6.35 | 43 |
| SEP1210E-6R8M-LF | 6.80 \pm 20% | 13.0 | 13.0 | 8.98 | 42 |
| SEP1210E-8R2M-LF | 8.20 \pm 20% | 12.0 | 13.0 | 9.90 | 34 |
| SEP1201E-100M-LF | 10.0 \pm 20% | 10.0 | 9.0 | 14.4 | 29 |

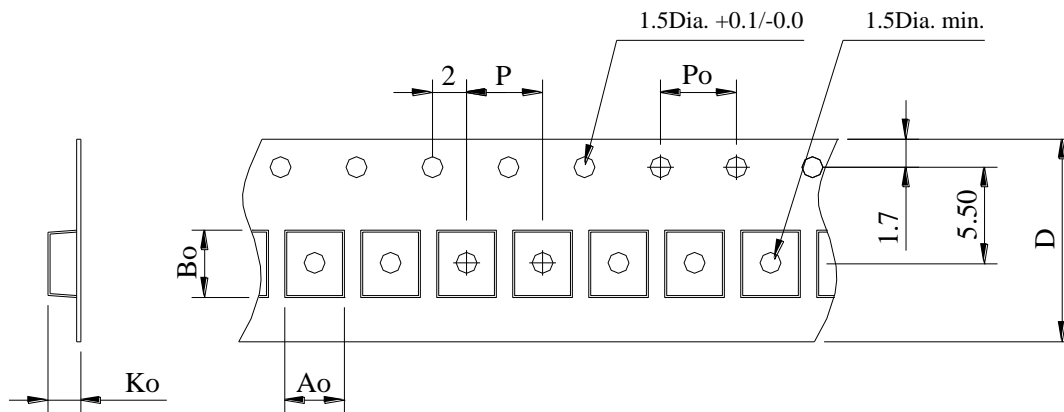
- Operating temperature range - 40 °C to + 125 °C
- Test Frequency at 100KHz/10mA .
- I sat : DC current (A) that will cause L0 to drop approximately 25 %
- I rms : DC current (A) that will cause an approximate Δ T of 40 °C
- The part temperature (ambient + temp. rise) should not exceed 125 °C under worst case operating conditions.



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PACKAGING SPECIFICATION



| STAYLE | Q'TY (PCS) | DIMENSIONS (m/m) | | | | | |
|--------|------------|------------------|-------|-------|-----|-------|------------|
| | | A_o | B_o | K_o | P | P_o | $D\pm 0.3$ |
| 13" | 300 | 11.8 | 12.6 | 10.2 | 20 | 4.0 | 24 |