



SEP1204E SERIES ~ High Current Power Inductors



AEC-Q₂₀₀

PART NUMBERING SYSTEM

| | | | | | | | |
|------------|--------------|---|-------------|---|-----------|---|------------|
| SEP | 1204E | — | 1R0M | — | LF | — | A |
| TYPE | DIMENSIONS | | INDUCTANCE | | LEAD FREE | | AUTOMOTIVE |

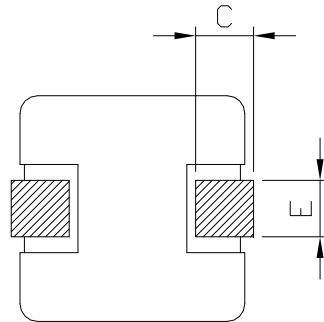
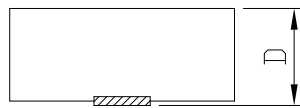
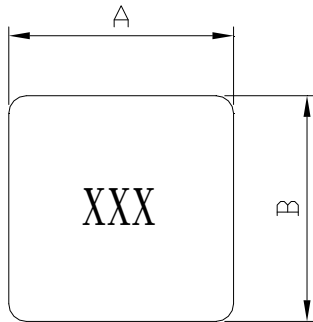
SHAPES AND DIMENSIONS :

UNIT : mm



FEATURES :

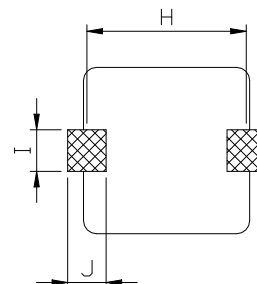
- * Low profile.
- * Magnetically shielded low DC resistance .
- * Suitable for large current application.
- * Laptop & Notebook computers.
- * Battery powered equipment.
- * DC/DC converters.
- * Digital 、 Cameras 、 Scanners, CD-ROM & DVD.



A=13.5±1.0 B=12.8±0.5 C=2.5 Ref. D=4.0 Max. E=3.8 Ref.

RECOMMENDED PATTERNS

H=10.25 I= 5.00 J= 4.25





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SPECIFICATION TABLE

AEC-Q₂₀₀

| PART NUMBER | INDUCTANCE (μ H) | I _{sat} (A) (Typ.) | I _{rms} (A) (Δ t) 40°C (Typ.) | DCR (m Ω) (Max.) | DCR (m Ω) (Typ.) | Test Freq. (KHz) |
|--------------------|--------------------------|----------------------------------|---|-----------------------------|-----------------------------|---------------------|
| SEP1204E-R10M-LF-A | 0.10 \pm 20% | 75 | 43 | 1.1 | 0.9 | 100KHz/1V |
| SEP1204E-R22M-LF-A | 0.22 \pm 20% | 70 | 41 | 1.4 | 1.2 | 100KHz/1V |
| SEP1204E-R33M-LF-A | 0.33 \pm 20% | 60 | 38 | 1.5 | 1.3 | 100KHz/1V |
| SEP1204E-R47M-LF-A | 0.47 \pm 20% | 55 | 32 | 1.9 | 1.4 | 100KHz/1V |
| SEP1204E-R60M-LF-A | 0.60 \pm 20% | 50 | 30 | 2.3 | 2.0 | 100KHz/1V |
| SEP1204E-R68M-LF-A | 0.68 \pm 20% | 46 | 28 | 2.5 | 2.1 | 100KHz/1V |
| SEP1204E-R82M-LF-A | 0.82 \pm 20% | 44 | 25 | 3.1 | 2.7 | 100KHz/1V |
| SEP1204E-0R9M-LF-A | 0.90 \pm 20% | 40 | 24 | 3.5 | 3.0 | 100KHz/1V |
| SEP1204E-1R0M-LF-A | 1.00 \pm 20% | 38 | 24 | 3.7 | 3.0 | 100KHz/1V |
| SEP1204E-1R2M-LF-A | 1.20 \pm 20% | 25 | 20 | 3.7 | 3.0 | 100KHz/1V |
| SEP1204E-1R5M-LF-A | 1.50 \pm 20% | 30 | 19 | 6.0 | 5.5 | 100KHz/1V |
| SEP1204E-1R8M-LF-A | 1.80 \pm 20% | 26 | 16 | 7.6 | 6.4 | 100KHz/1V |
| SEP1204E-2R2M-LF-A | 2.20 \pm 20% | 22 | 16 | 7.6 | 6.4 | 100KHz/1V |
| SEP1204E-3R3M-LF-A | 3.30 \pm 20% | 20 | 14 | 8.4 | 7.5 | 100KHz/1V |
| SEP1204E-4R7M-LF-A | 4.70 \pm 20% | 15 | 11 | 12.0 | 10.5 | 100KHz/1V |
| SEP1204E-5R6M-LF-A | 5.60 \pm 20% | 19 | 9.5 | 18.0 | 17.1 | 100KHz/1V |
| SEP1204E-6R8M-LF-A | 6.80 \pm 20% | 18 | 9.0 | 22.0 | 19.8 | 100KHz/1V |
| SEP1204E-8R2M-LF-A | 8.20 \pm 20% | 16 | 8.5 | 28.0 | 24.8 | 100KHz/1V |
| SEP1204E-100M-LF-A | 10.0 \pm 20% | 14 | 7.0 | 34.0 | 30.4 | 100KHz/1V |

- I_{sat} : DC current at which the inductance drops 30% (typ) from its value without current.
- I_{rms} : Average current for a 40°C temperature rise above 25°C ambient.
- Operating temperature range -55°C to +125°C.

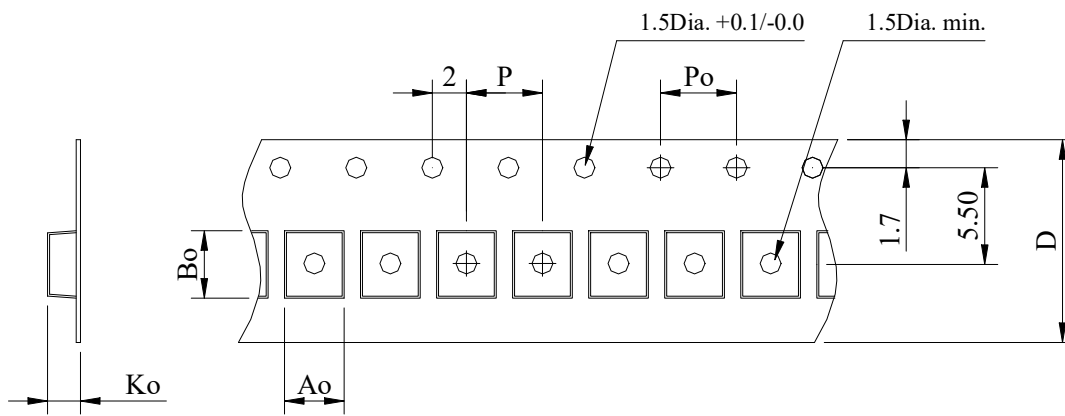


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PACKAGING SPECIFICATION

AEC-Q₂₀₀



| STAYLE | Q'TY (PCS) | DIMENSIONS (m/m) | | | | | |
|--------|------------|------------------|-------|-------|-----|-------|-------------|
| | | A_o | B_o | K_o | P | P_o | $D \pm 0.3$ |
| 13" | 500 | 14.2 | 13.5 | 4.1 | 20 | 4.0 | 24 |