

## SDS0603EC SERIES ~ High Current Power Inductors



### PART NUMBERING SYSTEM

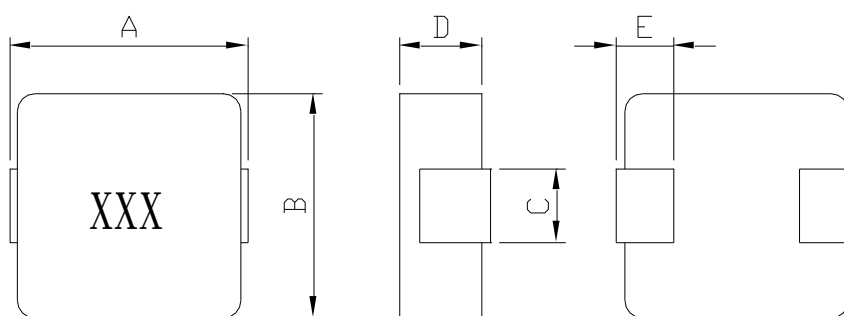
|            |               |   |             |   |           |
|------------|---------------|---|-------------|---|-----------|
| <b>SEP</b> | <b>0603EC</b> | — | <b>4R7M</b> | — | <b>LF</b> |
| TYPE       | DIMENSIONS    |   | INDUCTANCE  |   | LEAD FREE |

### FEATURES :

- Low profile ( 3.0mm max. height ) and 7.5 mm max. square.
- Magnetically shielded and low DC resistance.
- Large current handling capability.
- Ultra low buzz noise, due to composite construction .
- Ideal for DC – DC converter inductor application in hand help personal Computer, etc.
- Frequency range up to 1MHZ.

### SHAPES AND DIMENSIONS:

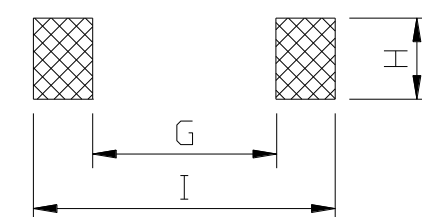
UNIT : mm



A=7.5 Max B=6.8 Max. C=3.0±0.3 D=3.0 Max. E=1.6±0.3

### RECOMMENDED PATTERNS:

UNIT : mm



H=3.5 G= 3.7 I = 8.4



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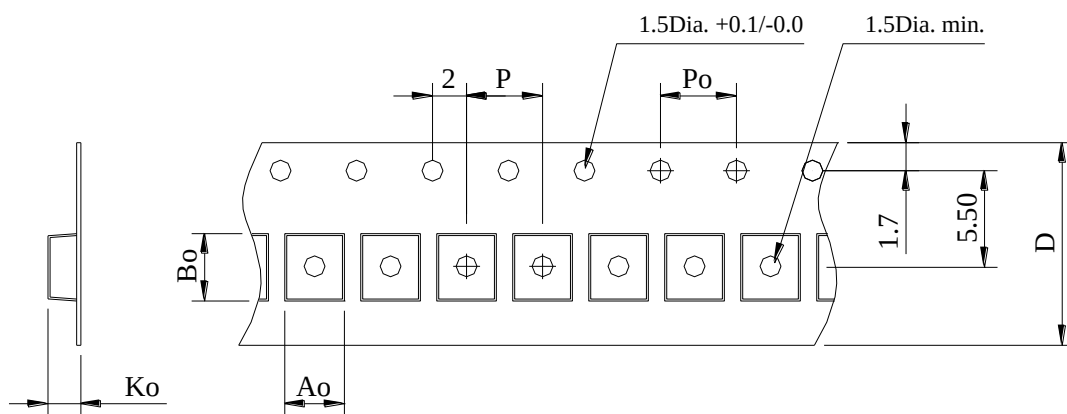


### SPECIFICATION TABLE

| PART NUMBER       | INDUCTANCE<br>( $\mu$ H) | Isat ( A )<br>(Min.) | Irms ( A )<br>(Min.) | DCR (m $\Omega$ )<br>(Max.) | DCR (m $\Omega$ )<br>(Typ.) | TEST FREQ.<br>( f ) |
|-------------------|--------------------------|----------------------|----------------------|-----------------------------|-----------------------------|---------------------|
| SEP0603EC-1R0M-LF | 1.0 $\pm$ 20%            | 9.5                  | 12.5                 | 8.00                        | 7.6                         | 100KHz/0.1V         |
| SEP0603EC-2R2M-LF | 2.2 $\pm$ 20%            | 7.0                  | 9.0                  | 16.5                        | 15.7                        | 100KHz/0.1V         |
| SEP0603EC-3R3M-LF | 3.3 $\pm$ 20%            | 6.5                  | 7.0                  | 26.0                        | 24.8                        | 100KHz/0.1V         |
| SEP0603EC-4R7M-LF | 4.7 $\pm$ 20%            | 4.0                  | 6.0                  | 33.4                        | 31.8                        | 100KHz/0.1V         |
| SEP0603EC-6R8M-LF | 6.8 $\pm$ 20%            | 4.0                  | 5.5                  | 46.8                        | 44.6                        | 100KHz/0.1V         |
| SEP0603EC-8R2M-LF | 8.2 $\pm$ 20%            | 4.0                  | 5.0                  | 54.9                        | 52.3                        | 100KHz/0.1V         |
| SEP0603EC-100M-LF | 10 $\pm$ 20%             | 3.5                  | 4.0                  | 71.2                        | 67.8                        | 100KHz/0.1V         |
| SEP0603EC-220M-LF | 22 $\pm$ 20%             | 3.5                  | 2.9                  | 135.0                       | 128.9                       | 100KHz/0.1V         |

- All test Data is referenced to 25°C ambient.
- Typical Heat Rating DC Current would cause an approximately  $\Delta T$  of 40°C.
- Typical Saturation DC Current would cause  $L_o$  to drop approximately 30%
- Operating Temperature Range: -55°C ~ +125°C.

### PACKAGING SPECIFICATION



| STAYLE | Q'TY (PCS) | DIMENSIONS (m/m) |     |     |    |     |             |
|--------|------------|------------------|-----|-----|----|-----|-------------|
|        |            | Ao               | Bo  | Ko  | P  | Po  | D $\pm$ 0.5 |
| 13"    | 1,000      | 7.2              | 7.5 | 3.6 | 12 | 4.0 | 16          |