

## SEP1210E SERIES~ High Current SMD Power Inductors



### PART NUMBERING SYSTEM

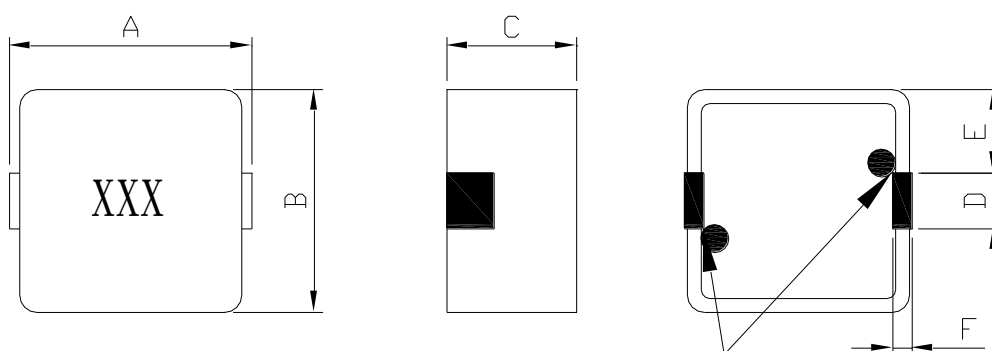
<b>SEP</b>	<b>1210E</b>	—	<b>R47M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

### 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

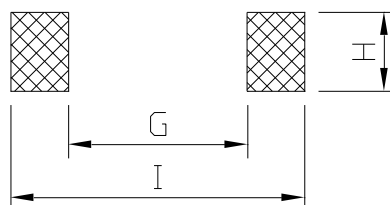


DCR is measured at the points

**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

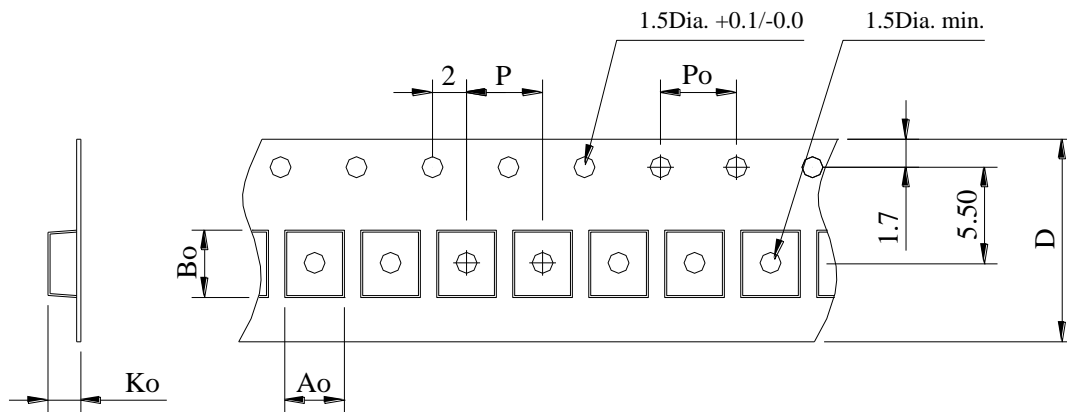
PART NUMBER	INDUCTANCE ( $\mu$ H)	Isat ( A ) (Typ.)	Irms ( A ) ( $\Delta$ t) 40°C (Typ.)	DCR (m $\Omega$ ) (Max.)	Fres (MHz)
SEP1210E-R22M-LF	0.22 $\pm$ 20%	60.0	27.0	0.53	280
SEP1210E-R33M-LF	0.33 $\pm$ 20%	55.0	27.0	0.53	214
SEP1210E-R47M-LF	0.47 $\pm$ 20%	48.0	26.0	0.72	138
SEP1210E-R68M-LF	0.68 $\pm$ 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  $\Delta$ 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