

## SEP1009E SERIES ~ High Current Power Inductors



### PART NUMBERING SYSTEM

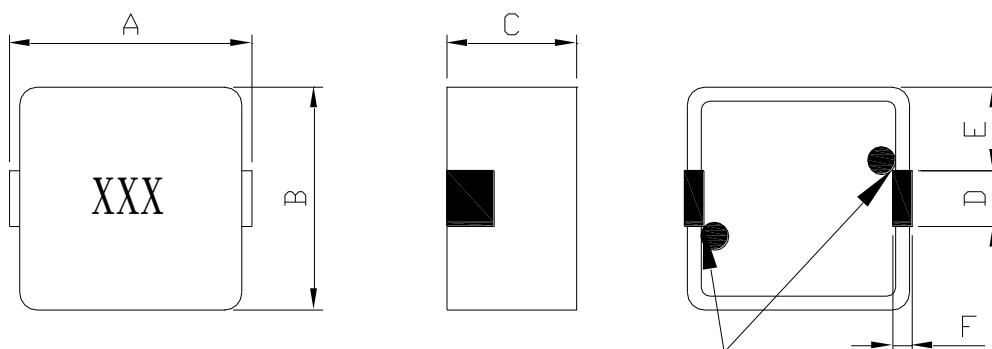
<b>SEP</b>	<b>1009E</b>	—	<b>R68M</b>	—	<b>LF</b>
TYPE	DIMENSIONS		INDUCTANCE		LEAD FREE

### FEATURES :

- Magnetically shielded construction with Halogen free
- 125°C maximum total temperature operation
- 10.9 x 10.0 x 9.3mm surface mount package
- 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 :

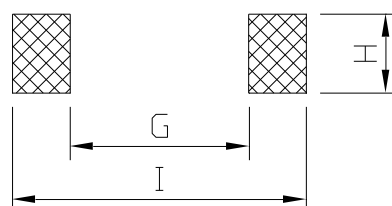
UNIT : mm



DCR is measured at the points

A=10.9±0.4 B=10.0±0.4 C=9.3±0.4 D=3.0±0.2 E=3.5 typ. F=1.6±0.2

### RECOMMENDED PATTERNS



G=6.9 H= 3.6 I= 11.3



**Coilmaster Electronics Co., Ltd.**  
9F-3 No.398, Huan Bei Rd. Chung Li City, Taoyuan 320, Taiwan

Email: [sales@bec.co.uk](mailto:sales@bec.co.uk)  
Web: [www.bec.co.uk](http://www.bec.co.uk)



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### SPECIFICATION TABLE

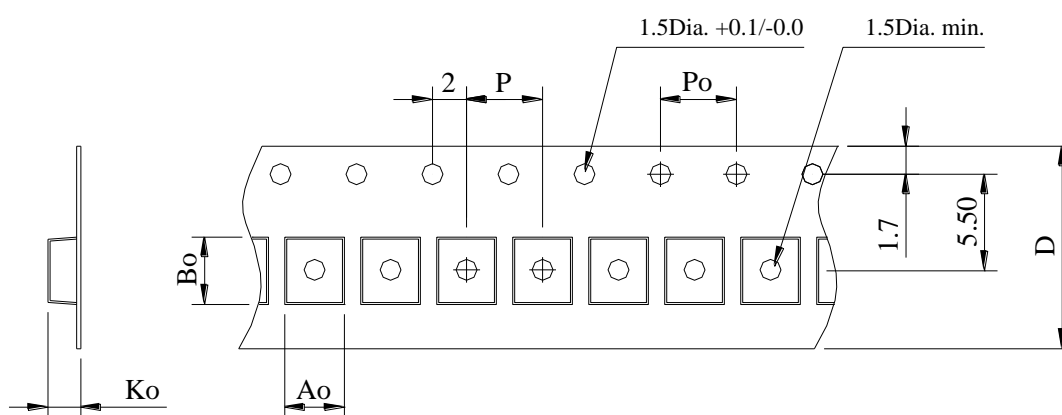
PART NUMBER	INDUCTANCE ( $\mu$ H)	Isat ( A ) (Typ.)	Irms ( A ) ( $\Delta$ t) 40°C (Typ.)	DCR (m $\Omega$ ) (Max.)	Fres (MHz)
SEP1009E-R22M-LF	0.22 $\pm$ 20%	60.0	21.5	0.60	300
SEP1009E-R33M-LF	0.33 $\pm$ 20%	55.0	21.5	0.60	250
SEP1009E-R47M-LF	0.47 $\pm$ 20%	47.0	20.5	0.80	160
SEP1009E-R68M-LF	0.68 $\pm$ 20%	38.0	20.0	1.35	140
SEP1009E-R82M-LF	0.82 $\pm$ 20%	36.0	20.0	1.35	120
SEP1009E-1R0M-LF	1.00 $\pm$ 20%	32.0	20.0	1.35	100
SEP1009E-1R5M-LF	1.50 $\pm$ 20%	27.0	18.0	2.50	78
SEP1009E-2R2M-LF	2.20 $\pm$ 20%	22.0	16.5	3.70	80
SEP1009E-3R3M-LF	3.30 $\pm$ 20%	15.5	14.0	5.40	51
SEP1009E-4R7M-LF	4.70 $\pm$ 20%	15.0	13.0	8.20	49
SEP1009E-6R8M-LF	6.80 $\pm$ 20%	11.0	11.5	13.2	40
SEP1009E-8R2M-LF	8.20 $\pm$ 20%	8.00	11.5	13.2	36
SEP1009E-100M-LF	10.0 $\pm$ 20%	8.00	9.0	20.7	35

- 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"	400	$10.4 \pm 0.1$	$11.3 \pm 0.1$	$10.2 \pm 0.1$	20	4.0	24