

# SMT Power Inductor

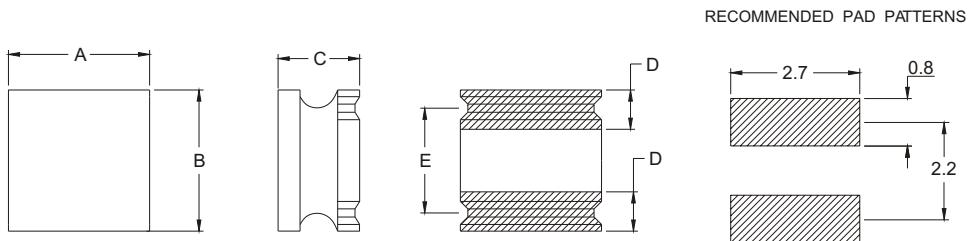
## SIG3012 Type

### Features

- RoHS compliant.
- Halogen free compliant.
- Low profile (1.2mm max. height ), SMD type.
- Shielded
- Self-leads, suitable for high density mounting.
- High energy storage.
- Provided with embossed carrier tape packing.
- Ideal for power source circuits, DC-DC converter, DC-AC inverters inductor applications.
- In addition to the standard versions shown here, customized inductors are available to meet your exact requirements.



### Mechanical Dimension:



UNIT : mm/inch  
 A =  $3.00 \pm 0.1$  /  $0.118 \pm 0.004$   
 B =  $3.00 \pm 0.1$  /  $0.118 \pm 0.004$   
 C =  $1.20$  /  $0.047$  Max.  
 D =  $0.90 \pm 0.2$  /  $0.035 \pm 0.008$   
 E =  $1.90 \pm 0.2$  /  $0.075 \pm 0.008$

### Electrical Characteristics: 25°C: 100KHz, 1.0V

PART NO.	L <sup>1</sup> ( $\mu$ H)	DCR ( $m\Omega$ ) Max.	I <sub>sat</sub> <sup>2</sup> (A <sub>d</sub> )	I <sub>r</sub> <sup>3</sup> (A <sub>d</sub> )
SIG3012 - 1R0	1.0	66	2.10	2.20
SIG3012 - 1R5	1.5	78	1.90	2.00
SIG3012 - 2R2	2.2	98	1.70	1.90
SIG3012 - 3R3	3.3	120	1.50	1.70
SIG3012 - 4R7	4.7	156	1.20	1.40
SIG3012 - 6R8	6.8	228	1.00	1.20
SIG3012 - 100	10.0	336	0.80	1.00
SIG3012 - 150	15.0	660	0.62	0.70
SIG3012 - 220	22.0	756	0.55	0.67
SIG3012 - 330	33.0	1236	0.31	0.33
SIG3012 - 470	47.0	1740	0.25	0.28

1. Tolerance of inductance:  $\pm 20\%$  for 1.0~47.0 $\mu$ H.
2. I<sub>sat</sub> is the DC current which cause the inductance drop 30% typical of its nominal inductance without current.
3. I<sub>r</sub> is the DC current which cause the surface temperature of the part increase less than 40°C.
4. Rated current : Value obtained when current flows and the temperature has risen to 40°C or when DC current flows and the nominal value of inductance has fallen by 30%, whichever is smaller.
5. Operating temperature: -40°C to 125°C (including self-temperature rise).



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