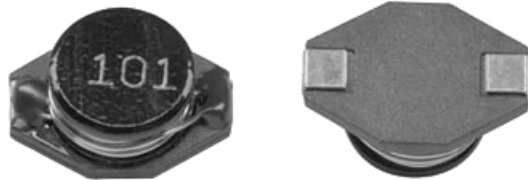


# High Current, Surface Mount Inductors - Non-Shielded



## FEATURES

- High energy storage
- Low resistance
- Tape and reel packaging for automatic handling
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0  $\mu$ H to 1000  $\mu$ H, tested at 0.1  $V_{RMS}$   
**Inductance Tolerance:** 20 %, tighter tolerance available upon request  
**Operating Temperature:** -40 °C to +125 °C  
**Resistance to Solder Heat:** 260 °C for 10 s

## MECHANICAL SPECIFICATIONS

**Core:** ferrite  
**Wire:** enamelled copper wire  
**Base:** LCP  
**Terminals:** nickel bronze  
**Adhesive:** epoxy resin

### STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE ( $\mu$ H)	TOLERANCE	TEST FREQUENCY L (kHz)	DCR MAX. ( $\Omega$ )	$I_{SAT}$ (A)	$I_{RMS}$ (A)
1.0	$\pm 20$ %	100	0.009	9.0	6.8
1.5	$\pm 20$ %	100	0.010	8.0	6.4
2.2	$\pm 20$ %	100	0.012	7.0	6.1
3.3	$\pm 20$ %	100	0.015	6.4	5.4
4.7	$\pm 20$ %	100	0.018	5.4	4.8
6.8	$\pm 20$ %	100	0.027	4.6	4.4
10	$\pm 20$ %	100	0.038	3.8	3.9
15	$\pm 20$ %	100	0.046	3.0	3.1
22	$\pm 20$ %	100	0.085	2.6	2.7
33	$\pm 20$ %	100	0.10	2.0	2.1
47	$\pm 20$ %	100	0.14	1.6	1.8
68	$\pm 20$ %	100	0.20	1.4	1.5
100	$\pm 20$ %	100	0.28	1.2	1.3
150	$\pm 20$ %	100	0.40	1.0	1.0
220	$\pm 20$ %	100	0.61	0.8	0.8
330	$\pm 20$ %	100	1.02	0.6	0.6
470	$\pm 20$ %	100	1.27	0.5	0.5
680	$\pm 20$ %	100	2.02	0.4	0.4
1000	$\pm 20$ %	100	3.00	0.3	0.3

### Notes

- Inductance drop = 10 % typ. at  $I_{SAT}$
- $\Delta T = 15$  °C typ. at  $I_{RMS}$

### DIMENSIONS in inches [millimeters]



A (Max.)	B (Max.)	D (Max.)	E	F	G	H	I	J
0.510 [12.95]	0.370 [9.40]	0.205 [5.21]	0.100 [2.54]	0.100 [2.54]	0.300 [7.62]	0.115 [2.92]	0.290 [7.37]	0.110 [2.79]

### DESCRIPTION

<b>IDC-5020</b>	<b>10 <math>\mu</math>H</b>	<b><math>\pm 20</math> %</b>	<b>ER</b>	<b>e3</b>
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

### GLOBAL PART NUMBER

<b>I</b>	<b>D</b>	<b>C</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>E</b>	<b>R</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>M</b>
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.



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