



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## High Current, Shielded, Surface Mount Inductors



### FEATURES

- High energy storage
- Low resistance
- Magnetically shielded
- Tape and reel packaging for automatic handling
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



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

### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0  $\mu\text{H}$  to 390.0  $\mu\text{H}$ , tested at 1.0  $V_{\text{RMS}}$

**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 ( $\mu\text{H}$ )	TOLERANCE	TEST FREQUENCY L (kHz)	DCR MAX. ( $\Omega$ )	$I_{\text{SAT}}$ (A)	$I_{\text{RMS}}$ (A)
1.0	$\pm 20\%$	100	0.021	5.6	5.0
1.5	$\pm 20\%$	100	0.022	5.2	4.5
2.2	$\pm 20\%$	100	0.032	5.0	3.8
3.3	$\pm 20\%$	100	0.039	3.9	3.3
4.7	$\pm 20\%$	100	0.054	3.2	2.7
6.8	$\pm 20\%$	100	0.075	2.8	2.2
10	$\pm 20\%$	100	0.101	2.4	2.0
15	$\pm 20\%$	100	0.150	2.0	1.5
22	$\pm 20\%$	100	0.207	1.6	1.3
33	$\pm 20\%$	100	0.334	1.4	1.1
47	$\pm 20\%$	100	0.472	1.0	0.80
56	$\pm 20\%$	100	0.210	0.95	0.90
68	$\pm 20\%$	100	0.340	0.90	0.82
82	$\pm 20\%$	100	0.380	0.85	0.75
100	$\pm 20\%$	100	0.420	0.80	0.68
120	$\pm 20\%$	100	0.460	0.70	0.60
150	$\pm 20\%$	100	0.520	0.60	0.55
180	$\pm 20\%$	100	0.700	0.65	0.50
220	$\pm 20\%$	100	0.800	0.50	0.45
270	$\pm 20\%$	100	1.100	0.45	0.40
330	$\pm 20\%$	100	1.200	0.40	0.35
390	$\pm 20\%$	100	1.400	0.35	0.33

#### Notes

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

### DIMENSIONS in inches [millimeters]

A (Max.)	B (Max.)	D (Max.)	E	F	G	H	I	J
0.510 [12.95]	0.370 [9.40]	0.200 [5.08]	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>IDCS-5020</b>	<b>10 <math>\mu\text{H}</math></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>S</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			INDUCTANCE TOLERANCE



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