THE DATASHEET OF

IDC5020ER330M

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

Pb-free

RoHS COMPLIANT

HALOGEN FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 1.0 µH to 1000 µH, 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

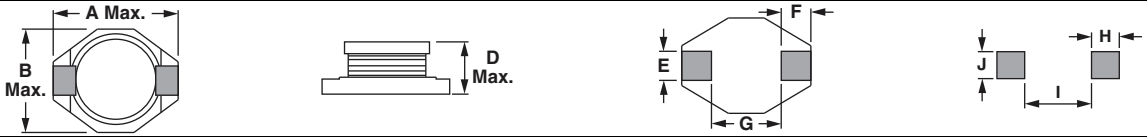
STANDARD ELECTRICAL SPECIFICATIONS

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

Notes

- Inductance drop = 10 % typ. at I_{SAT}
- ΔT = 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

IDC-5020	10 µH	± 20 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

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

For technical questions, contact: magnetics@vishay.com

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