High Current, Surface-Mount Inductors - Shielded

FEATURES

- High energy storage
- Low resistance
- Magnetically shielded
- 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 390.0 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

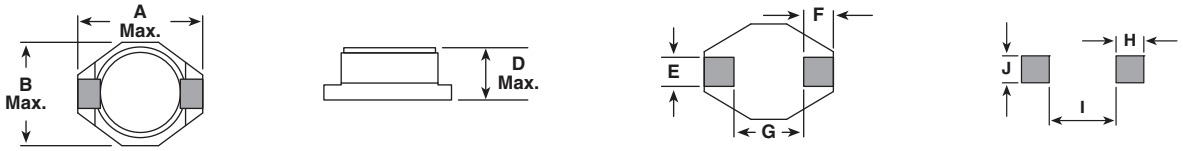
STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE (µH)	INDUCTANCE (µH)	TOLERANCE	TEST FREQUENCY L (kHz)	DCR MAX. (Ω)	I_{SAT} (A)	I_{RMS} (A)
IDCS5020ER1R0M	1.0	± 20 %	100	0.021	5.6	5.0
IDCS5020ER1R5M	1.5	± 20 %	100	0.022	5.2	4.5
IDCS5020ER2R2M	2.2	± 20 %	100	0.032	5.0	3.8
IDCS5020ER3R3M	3.3	± 20 %	100	0.039	3.9	3.3
IDCS5020ER4R7M	4.7	± 20 %	100	0.054	3.2	2.7
IDCS5020ER6R8M	6.8	± 20 %	100	0.075	2.8	2.2
IDCS5020ER100M	10	± 20 %	100	0.101	2.4	2.0
IDCS5020ER150M	15	± 20 %	100	0.150	2.0	1.5
IDCS5020ER220M	22	± 20 %	100	0.207	1.6	1.3
IDCS5020ER330M	33	± 20 %	100	0.334	1.4	1.1
IDCS5020ER470M	47	± 20 %	100	0.472	1.0	0.80
IDCS5020ER560M	56	± 20 %	100	0.210	0.95	0.90
IDCS5020ER680M	68	± 20 %	100	0.340	0.90	0.82
IDCS5020ER820M	82	± 20 %	100	0.380	0.85	0.75
IDCS5020ER101M	100	± 20 %	100	0.420	0.80	0.68
IDCS5020ER121M	120	± 20 %	100	0.460	0.70	0.60
IDCS5020ER151M	150	± 20 %	100	0.520	0.60	0.55
IDCS5020ER181M	180	± 20 %	100	0.700	0.65	0.50
IDCS5020ER221M	220	± 20 %	100	0.800	0.50	0.45
IDCS5020ER271M	270	± 20 %	100	1.100	0.45	0.40
IDCS5020ER331M	330	± 20 %	100	1.200	0.40	0.35
IDCS5020ER391M	390	± 20 %	100	1.400	0.35	0.33

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]	0.200 [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]

For technical questions, contact: magnetics@vishay.com

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DESCRIPTION

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

GLOBAL PART NUMBER

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

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