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

Pb-free
RoHS COMPLIANT
HALOGEN FREE

ELECTRICAL SPECIFICATIONS

Inductance Range: 1.0 µH to 390.0 µH, tested at 1.0 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

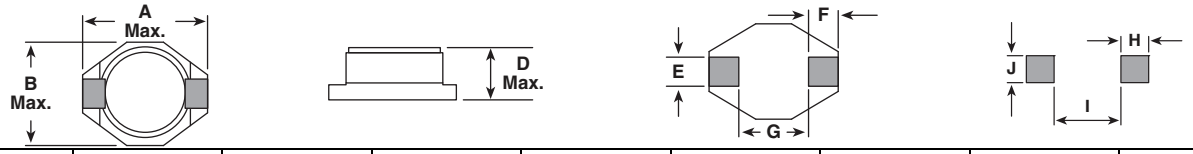
STANDARD ELECTRICAL SPECIFICATIONS

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

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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Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург, Промышленная ул, дом № 19, литера Н, помещение 100-Н Офис 331