

# High Current, Surface Mount Inductor



## FEATURES

- High energy storage.
- Low resistance.
- Tape and reel packaging for automatic handling.

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 10.0 $\mu$ H to 470 $\mu$ H.

**Inductance Tolerance:** 20%.

**Operating Temperature:** - 25°C to + 105°C.

**Storage Temperature:** - 40°C to 125°C.

**Resistance to Solder Heat:** 260°C for 10 seconds.

## MATERIALS

**Core:** Ferrite.

**Wire:** Enamelled copper wire.

**Terminal:** Ag + Ni + Sn/Pb.

### STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE ( $\mu$ H)	TEST FREQUENCY L	DCR MAXIMUM (Ohms)	RATED DC CURRENT* (A)
10.0	2.52MHz	0.07	2.30
12.0	2.52MHz	0.08	2.00
15.0	2.52MHz	0.09	1.80
18.0	2.52MHz	0.10	1.60
22.0	2.52MHz	0.11	1.50
27.0	2.52MHz	0.12	1.30
33.0	2.52MHz	0.13	1.20
39.0	2.52MHz	0.16	1.10
47.0	2.52MHz	0.18	1.10
56.0	2.52MHz	0.24	0.94
68.0	2.52MHz	0.28	0.85
82.0	2.52MHz	0.37	0.78
100.0	1KHz	0.43	0.72
120.0	1KHz	0.47	0.66
150.0	1KHz	0.64	0.58
180.0	1KHz	0.71	0.51
220.0	1KHz	0.96	0.49
270.0	1KHz	1.11	0.42
330.0	1KHz	1.26	0.40
390.0	1KHz	1.77	0.36
470.0	1KHz	1.96	0.34

\*Rated Current: Value obtained when current flows and the temperature has risen 40°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

DESCRIPTION		
IDCP-3020	10 $\mu$ H	$\pm$ 20%
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE

### DIMENSIONS in inches [millimeters]

TYPICAL PAD LAYOUT

A	B	C
0.307 $\pm$ 0.01 [7.8 $\pm$ 0.3]	0.197 $\pm$ 0.02 [5.0 $\pm$ 0.5]	0.276 $\pm$ 0.01 [7.0 $\pm$ 0.3]
D	E	F
0.296 [7.5]	0.118 [3.0]	0.079 [2.0]

### SAP PART NUMBERING GUIDELINES (INTERNAL)

I	D	C	P	3	0	2	0	N	B	1	0	0	M
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

See the end of this data book for conversion tables