

## High Current, Surface Mount Inductor



### FEATURES

- High energy storage
- Low resistance
- Tape and reel packaging for automatic handling
- 100 % lead (Pb)-free and RoHS compliant



**RoHS**  
COMPLIANT

### ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0  $\mu\text{H}$  to 68  $\mu\text{H}$   
**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 + Sn/Ag/Cu

STANDARD ELECTRICAL SPECIFICATIONS			
INDUCTANCE ( $\mu\text{H}$ )	TEST FREQUENCY L	DCR MAXIMUM (Ohms)	RATED DC CURRENT* (A)
1.0	7.96 MHz	0.033	3.80
1.4	7.96 MHz	0.038	3.30
1.8	7.96 MHz	0.042	2.91
2.2	7.96 MHz	0.047	2.60
2.7	7.96 MHz	0.052	2.43
3.3	7.96 MHz	0.058	2.15
3.9	7.96 MHz	0.076	1.98
4.7	7.96 MHz	0.094	1.70
5.6	7.96 MHz	0.101	1.60
6.8	7.96 MHz	0.117	1.41
8.2	7.96 MHz	0.132	1.26
10.0	2.52 MHz	0.182	1.15
12.0	2.52 MHz	0.210	1.05
15.0	2.52 MHz	0.235	0.92
18.0	2.52 MHz	0.338	0.84
22.0	2.52 MHz	0.378	0.76
27.0	2.52 MHz	0.522	0.71
33.0	2.52 MHz	0.540	0.64
39.0	2.52 MHz	0.587	0.59
47.0	2.52 MHz	0.844	0.54
56.0	2.52 MHz	0.937	0.50
68.0	2.52 MHz	1.117	0.46

\*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.

DIMENSIONS in inches [millimeters]		
<b>A</b>	<b>B</b>	<b>C</b>
0.178 $\pm$ 0.01 [4.5 $\pm$ 0.3]	0.126 $\pm$ 0.01 [3.2 $\pm$ 0.3]	0.158 $\pm$ 0.01 [4.0 $\pm$ 0.3]
<b>D</b>	<b>E</b>	<b>F</b>
0.178 [4.5]	0.069 [1.75]	0.059 [1.5]

DESCRIPTION				
IDCP-1813	10 $\mu\text{H}$	$\pm$ 20 %	ER	e1
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>P</b>	<b>1</b> <b>8</b> <b>1</b> <b>3</b>	<b>E</b> <b>R</b>	<b>1</b> <b>0</b> <b>0</b>	<b>M</b>
MODEL	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE



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