

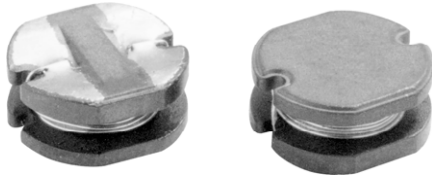


**THE DATASHEET OF  
IDCP1813ER4R7M**





# 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](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**

## ELECTRICAL SPECIFICATIONS

**Inductance Range:** 1.0  $\mu$ H to 68  $\mu$ H  
**Inductance Tolerance:** 20 %  
**Operating Temperature:** -40 °C to +125 °C (temperature rise included)#  
**Storage Temperature:** -40 °C to +125 °C  
**Resistance to Solder Heat:** 260 °C for 10 s

## MATERIALS

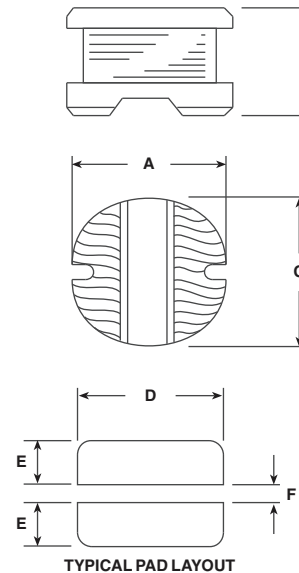
**Core:** ferrite  
**Wire:** enamelled copper wire  
**Terminals:** Ag and Sn / Ag / Cu

STANDARD ELECTRICAL SPECIFICATIONS			
INDUCTANCE ( $\mu$ H)	TEST FREQUENCY L	DCR MAX. ( $\Omega$ )	RATED DC CURRENT (A) <sup>(1)</sup>
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

### Note

<sup>(1)</sup> 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]



A	B	C
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]
D	E	F
0.178 [4.5]	0.069 [1.75]	0.059 [1.5]

DESCRIPTION				
IDCP-1813	10 $\mu$ H	$\pm$ 20 %	ER	e1
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER				
I	D	C	P	
PRODUCT FAMILY				
1	8	1	3	
SIZE				
E	R			
PACKAGE CODE				
1	0	0		
INDUCTANCE VALUE				
			M	
			INDUCTANCE TOLERANCE	



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