

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 μH to 68 μH
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 (μH) | 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] | | |
|------------------------------------|-----------------------------|-----------------------------|
| | | |
| A | B | C |
| 0.178 ± 0.01 [4.5 ± 0.3] | 0.126 ± 0.01 [3.2 ± 0.3] | 0.158 ± 0.01 [4.0 ± 0.3] |
| D | E | F |
| 0.178 [4.5] | 0.069 [1.75] | 0.059 [1.5] |

| DESCRIPTION | | | | |
|-------------------------------------|-------------------------------------|----------------------|----------------------------|-------------------------------|
| IDCP-1813 | 10 μH | ± 20 % | ER | e1 |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |
| GLOBAL PART NUMBER | | | | |
| I D C P | 1 8 1 3 | E R | 1 0 0 | M |
| MODEL | SIZE | PACKAGE CODE | INDUCTANCE VALUE | INDUCTANCE TOLERANCE |



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