

## SCOPE :

This specification applies to the current type Radial Leaded Inductor  
for MCD-0808-SERIES

## PRODUCT IDENTIFICATION

MCD- 0808 - 221 K-RU

①      ②      .      ④

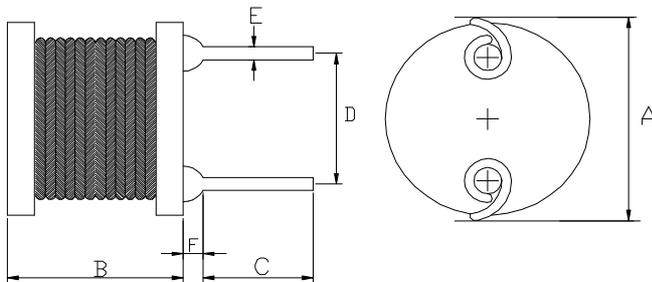
MCDI- Product Code

MCDII- Dimensions Code

MCDIII- Inductance Code

MCDIV- Tolerance Code

## (1) SHAPES AND DIMENSIONS



A : 10.0 Max.	mm
B : 9.5 Max.	mm
C : 15.0±2.0	mm
D : 5.0±0.5	mm
E : φ0.8±0.1	mm
F : 2.5 Max.	mm

## (2) ELECTRICAL SPECIFICATIONS

### SEE TABLE 1

#### TEST INSTRUMENTS

L : HP 4284A PRECISION LCR METER (or equivalent)

RDC : CHROMA MODEL 16502 MILLIOHMMETER (or equivalent)

## (3) CHARACTERISTICS

(3)-1 Ambient temperature ..... +60°C Max.

(3)-2 Operate temperature range ..... -40°C ~ +125°C

(Including self temp. rise)

(3)-3 Storage temperature range ..... -40°C ~ +125°C

**TABLE 1**

MAGLAYERS PT/NO.	Inductance L( $\mu$ H)	Percent Tolerance	Test Frequency	Resistance RDC( $\Omega$ )Max.	Rated DC Current	
					IDC1(A)	IDC2(A)
MCD-0808-100□-RU	10	M	100kHz/0.25V	44 m	4.0	3.4
MCD-0808-150□-RU	15	M	100kHz/0.25V	56 m	3.5	3.0
MCD-0808-220□-RU	22	M	100kHz/0.25V	70 m	3.0	2.5
MCD-0808-330□-RU	33	M	100kHz/0.25V	0.10	2.7	2.1
MCD-0808-390□-RU	39	M	100kHz/0.25V	0.12	2.5	2.0
MCD-0808-470□-RU	47	M	100kHz/0.25V	0.14	2.3	1.7
MCD-0808-560□-RU	56	K,M	100kHz/0.25V	0.16	2.0	1.6
MCD-0808-680□-RU	68	K,M	100kHz/0.25V	0.17	1.8	1.5
MCD-0808-101□-RU	100	K,M	100kHz/0.25V	0.30	1.4	1.3
MCD-0808-221□-RU	220	K,M	100kHz/0.25V	0.62	1.0	0.9
MCD-0808-472□-RU	4700	K,M	10kHz/0.25V	14.8	0.25	0.17

※ □ specify the inductance tolerance, K( $\pm$ 10%), M( $\pm$ 20%)

IDC1 : Based on inductance change ( $\Delta$ L/Lo : drop 10% Max.) @ ambient temp. 25°C

IDC2 : Based on temperature rise ( $\Delta$ T : 40°C Typ.)

Rated DC Current : The less value which is IDC1 or IDC2.

## (4) RELIABILITY TEST METHOD MECHANICAL

NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the terminal electrode should be covered with solder.	Dipping: 245 ± 5 °C, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg minimum until lead breakdown. The tensile force shall be recorded.
3	Vibration test	$\Delta L/L \leq \pm 7\%$ Visual:OK	The product is fixed into the vibration with amplitude of 1.52m/m at a frequency of 10~55Hz sweeping for 1min. The vibration is done at X,Y, Z direction respectively for 2 hours, totally 6 hours.
4	Soldering heat resistance test	Visual:OK Circuit:OK	The leads of product are dipped into a solder pot of 260±5°C for a duration of 10±1sec. Nothing particular on visual and open circuitry as a result of ore testing.

## ENVIRONMENTAL

NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of 40±2°C, 90~95%RH for 96 hours. Measurement is done after the recovery of 4~24 hours.
2	High temp endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of 80±2°C, for 72 hours. Measurement is done after recovery of 4~24 hours.
3	Low temp test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of -40±2°C, for 96 hours. Measurement is done after recovery of 4~24 hours.
4	Thermal shock test	$\Delta L/L \leq \pm 5\%$	The specimens are placed in a chamber and the temp is then lowered to -20±2°C for one hour. The temp will raised to +80±2°C for one hour. This constitutes one cycle. Ten cycles of such testing shall be completed. Measurement is made after recovery for 4~24 hours from the completion of testing.

## (5) PACKAGE SPECIFICATION (mm)

