

SCOPE :

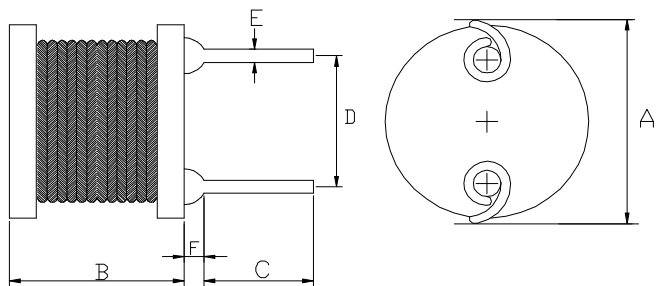
This specification applies to the current type Radial Leaded Inductor  
for MCD-0808-SERIES

PRODUCT IDENTIFICATION

MCD- 0808 - 221 K  
①      ②      ③ ④

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ 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℃ Max.
- (3)-2 Operate temperature range ..... -40℃ ~ +125℃  
(Including self temp. rise)
- (3)-3 Storage temperature range ..... -40℃ ~ +125℃

**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□	10	M	100kHz/0.25V	44 m	4.0	3.4
MCD-0808-150□	15	M	100kHz/0.25V	56 m	3.5	3.0
MCD-0808-220□	22	M	100kHz/0.25V	70 m	3.0	2.5
MCD-0808-330□	33	M	100kHz/0.25V	0.10	2.7	2.1
MCD-0808-390□	39	M	100kHz/0.25V	0.12	2.5	2.0
MCD-0808-470□	47	M	100kHz/0.25V	0.14	2.3	1.7
MCD-0808-560□	56	K,M	100kHz/0.25V	0.16	2.0	1.6
MCD-0808-680□	68	K,M	100kHz/0.25V	0.17	1.8	1.5
MCD-0808-101□	100	K,M	100kHz/0.25V	0.30	1.4	1.3
MCD-0808-221□	220	K,M	100kHz/0.25V	0.62	1.0	0.9
MCD-0808-472□	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 ( $\Delta L/L_o$  : 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: $245 \pm 5^{\circ}\text{C}$ , $3 \pm 1$ 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 $260 \pm 5^{\circ}\text{C}$ for a duration of $10 \pm 1$ sec. 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 $40 \pm 2^{\circ}\text{C}$ , 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 $80 \pm 2^{\circ}\text{C}$ , 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 $-40 \pm 2^{\circ}\text{C}$ , 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 $-20 \pm 2^{\circ}\text{C}$ for one hour. The temp will raised to $+80 \pm 2^{\circ}\text{C}$ 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)

