

SCOPE :

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

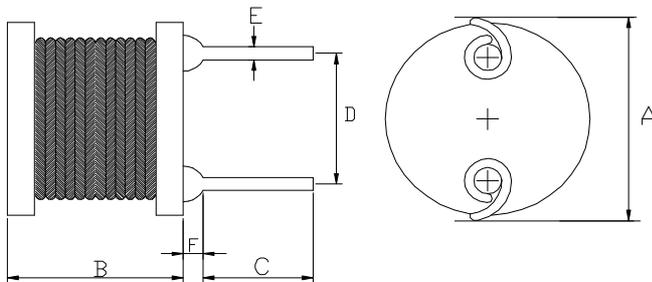
PRODUCT IDENTIFICATION

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 : $\varnothing 0.8 \pm 0.1$	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 MILLIOHM METER (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



MAG.LAYERS

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)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(±10%), M(±20%)

IDC1 : Based on inductance change ($\Delta L/L_0$: drop 10% Max.) @ ambient temp. 25°C

IDC2 : Based on temperature rise (ΔT : 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)

