

I . SCOPE :

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

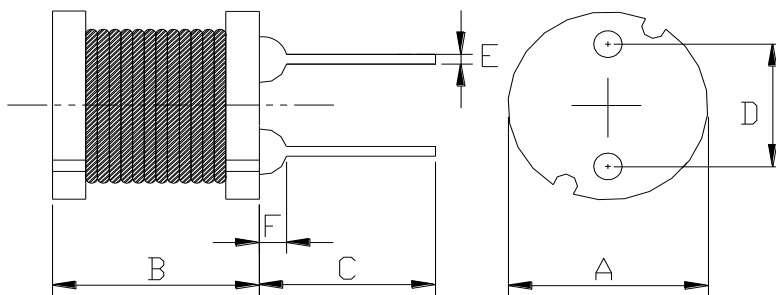
PRODUCT IDENTIFICATION

MCD- 0808S - 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 : φ0.65±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 Operate temperature range $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

(Including self temp. rise)

(3)-2 Storage temperature range $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$



MAG.LAYERS

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					Isat(A)	Irms(A)
MCD-0808S-1R0□	1.0	M,N	100kHz/0.25V	10.5m	11	7.0
MCD-0808S-1R2□	1.2	M,N	100kHz/0.25V	11m	10	6.5
MCD-0808S-3R3□	3.3	K,M	100kHz/0.25V	14m	8.2	5.0
MCD-0808S-4R7□	4.7	M	100kHz/0.25V	23m	7.0	4.5
MCD-0808S-6R8□	6.8	M	100kHz/0.25V	31m	6.0	4.0
MCD-0808S-100□	10	M	100kHz/0.25V	44 m	4.0	3.4
MCD-0808S-150□	15	M	100kHz/0.25V	56 m	3.5	3.0
MCD-0808S-220□	22	M	100kHz/0.25V	70 m	3.0	2.5
MCD-0808S-330□	33	M	100kHz/0.25V	0.10	2.7	2.1
MCD-0808S-390□	39	M	100kHz/0.25V	0.12	2.5	2.0
MCD-0808S-470□	47	M	100kHz/0.25V	0.14	2.3	1.7
MCD-0808S-560□	56	K,M	100kHz/0.25V	0.16	2.0	1.6
MCD-0808S-680□	68	K,M	100kHz/0.25V	0.17	1.8	1.5
MCD-0808S-101□	100	K,M	100kHz/0.25V	0.30	1.4	1.3
MCD-0808S-221□	220	K,M	100kHz/0.25V	0.62	1.0	0.9
MCD-0808S-471□	470	K,M	100kHz/0.25V	1.30	0.70	0.54
MCD-0808S-681□	680	K,M	100kHz/0.25V	2.00	0.58	0.42
MCD-0808S-102□	1000	K,M	100kHz/0.25V	3.00	0.55	0.36
MCD-0808S-222□	2200	K,M	10kHz/0.25V	6.20	0.43	0.26
MCD-0808S-272□	2700	K,M	10kHz/0.25V	7.50	0.35	0.25
MCD-0808S-472□	4700	K,M	10kHz/0.25V	14.8	0.25	0.17

※ □ specify the inductance tolerance,K(±10%),M(±20%)

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

Irms : Based on temperature rise (ΔT : 40°C Typ.)

Rated DC Current : The less value which is Isat or Irms.



(4) RELIABILITY TEST METHOD MECHANICAL

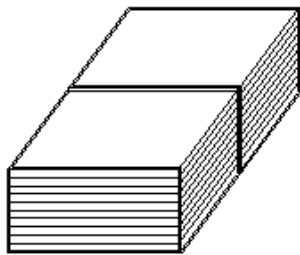
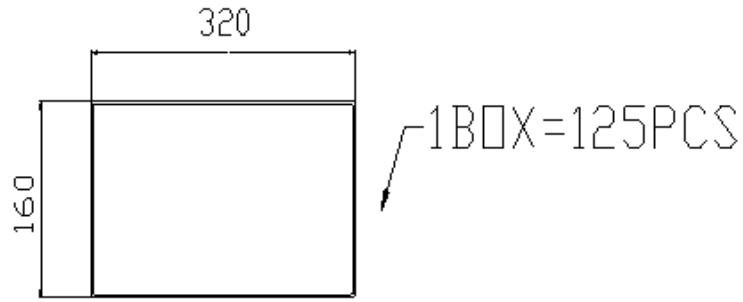
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the terminal electrode should be covered with solder.	Dipping: 245 ± 5 °C, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg minimum until lead breakdown. The tensile force 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 houes, 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

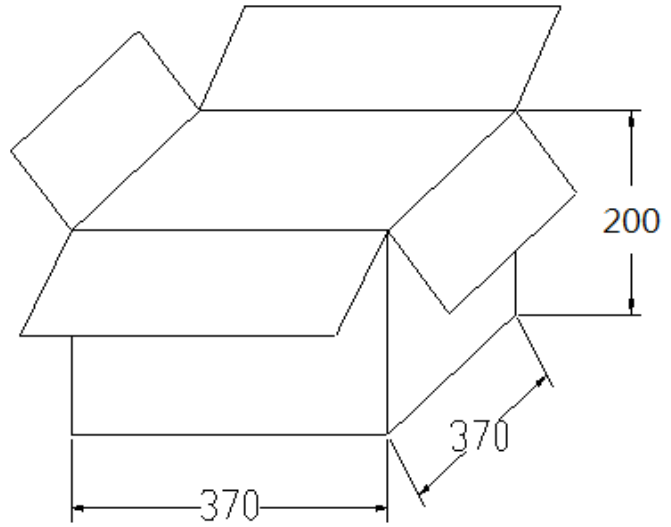
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of 40±2°C, 90~95%RH for 96 hours. Measurement is done after the reaovery of 4~24 hours.
2	High temp endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of 125±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 -40±2°C for one hour. The temp will raised to +125±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.



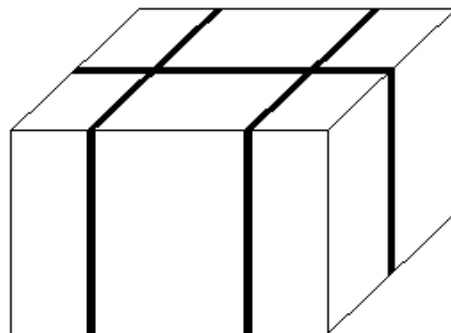
(5) PACKAGE SPECIFICATION (mm)



INNER BOX *20 (2,500 PCS)



OUT BOX (2,500 PCS)



Please note that the contents may change without any prior notice due to reasons such as upgrading.

