

SCOPE :

This specification applies to the current type Radial Leaded Inductor
for MCD-0406S-SERIES

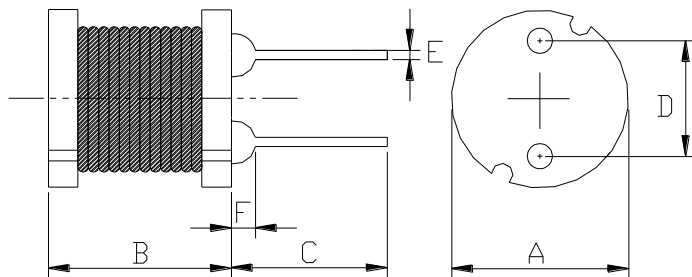
PRODUCT IDENTIFICATION

MCD - 0406S - 102 K

① ② ③ ④

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code

(1) SHAPES AND DIMENSIONS



A: 5.0Max.	mm
B: 7.0Max.	mm
C: 15±2.0	mm
D: 2.0±0.5	mm
E: φ0.5±0.1	mm
F: 2.0Max.	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 Operate temperature range -40°C ~ +125°C

(Including self temp. rise)

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



MAG.LAYERS

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μ H)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					Isat(A)	Irms(A)
MCD-0406S-1R0□	1.0	M,N	100kHz/0.25V	12.6m	5.20	4.70
MCD-0406S-1R5□	1.5	M,N	100kHz/0.25V	16.4m	4.30	4.50
MCD-0406S-2R2□	2.2	M,N	100kHz/0.25V	22.8m	3.50	3.80
MCD-0406S-3R3□	3.3	M,N	100kHz/0.25V	30.1m	2.60	3.00
MCD-0406S-851□	850	K,M	100kHz/0.25V	6.5	0.16	0.18
MCD-0406S-102□	1000	K,M	100kHz/0.25V	7.0	0.15	0.17
MCD-0406S-562□	5600	K	1kHz/0.25V	32	0.07	0.09

※ □ specify the inductance tolerance, K(\pm 10%), M(\pm 20%), N(\pm 30%)

※ Isat : Based on inductance change (Δ L/Lo : drop 10% Max.) @ ambient temp. 25°C

Irms : Based on temperature rise (Δ T : 40°C TYP.)

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



(4) RELIABILITY TEST METHOD MECHANICAL

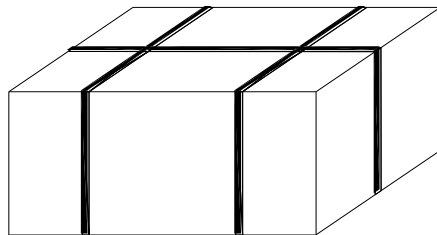
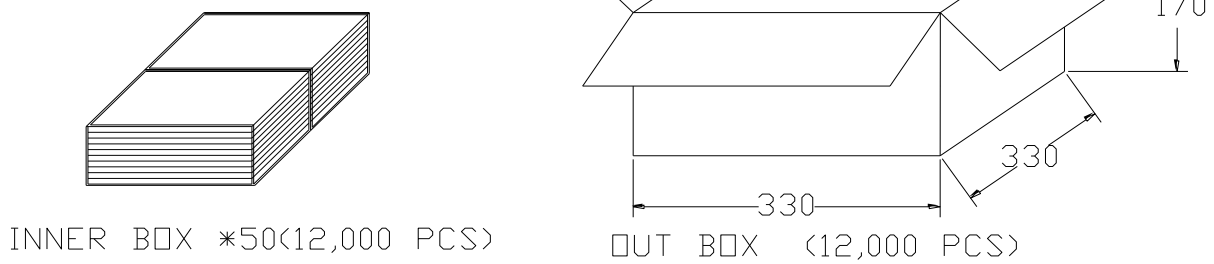
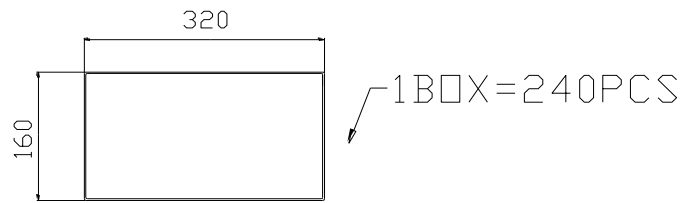
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the terminal electrode should be covered with solder.	Dipping: 245 ± 5 °C, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg minimum until lead breakdown. The tensile force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



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

