SCOPE :

This specification applies to the current type Radial Leaded Inductor for MCD-1012-SERIES

PRODUCT INDENTIFICATION

MCD - 1012 - 101 J-RU

① ② ③ ④

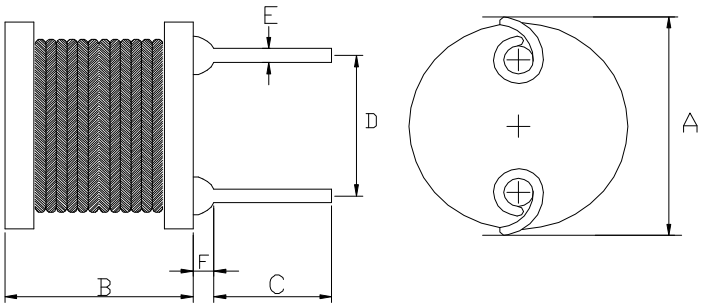
① Product Code

② Dimensions Code

③ Inductance Code

④ Tolerance Code

(1) SHAPES AND DIMENSIONS



A:	**12.0 Max.**	**mm**
B:	**12.5 Max.**	**mm**
C:	**15±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(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					IDC1(A)	IDC2(A)
MCD-1012-4R7□-RU	4.7	M	100kHz/0.25V	15.0m	9.0	6.40
MCD-1012-100□-RU	10	K,M	100kHz/0.25V	21.0m	7.0	5.50
MCD-1012-150□-RU	15	K,M	100kHz/0.25V	31.2m	5.0	4.20
MCD-1012-220□-RU	22	K,M	100kHz/0.25V	44.1m	4.5	3.80
MCD-1012-330□-RU	33	K,M	100kHz/0.25V	66.5m	3.5	3.10
MCD-1012-101□-RU	100	J,K	100KHz/0.25V	0.15	2.2	2.00
MCD-1012-151□-RU	150	K,M	100KHz/0.25V	0.21	1.9	1.80
MCD-1012-471□-RU	470	K,M	100KHz/0.25V	0.70	1.0	0.80
MCD-1012-681□-RU	680	K,M	100KHz/0.25V	0.96	0.8	0.70
MCD-1012-821□-RU	820	K,M	100KHz/0.25V	1.20	0.75	0.65
MCD-1012-102□-RU	1000	J,K,M	100KHz/0.25V	1.50	0.65	0.60

※ □ specify the inductance tolerance,J(±5%),K(±10%),M(±20%)

※ IDC1：Based on inductance change (△L/Lo：drop 10% Max.) @ambient temperature 25℃

IDC2：Based on temperature rise (△T： 40℃ TYP.)

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

(4) RELIABILITY TEST METHOD

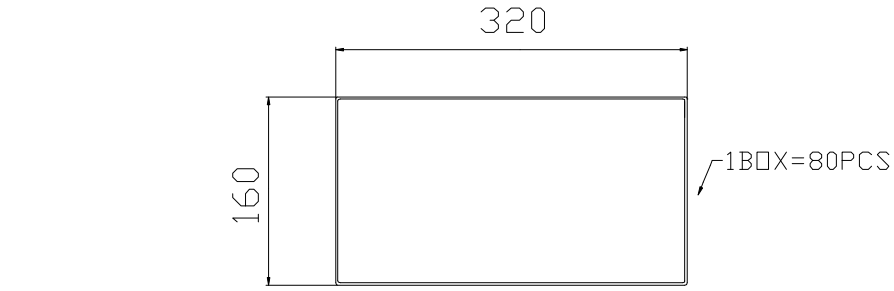
MECHANICAL

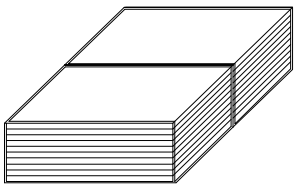
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the termnial electrode should be covered with solder.	Dipping: 245 ± 5 ℃, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg mininum until lead breakdown. The tensile force shall be recorded.
3	Vibration test	△L/L≦±7% Visual:OK	The product is fixed ento the vibration with amplitude of 1.52m/m at a frequency of 10～55Hz sweeping for lmin. 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℃ for a duration of 10±1sec. Nothing particular on visual and open circuitry as a result of ore testing.

ENVIRONMENTAL

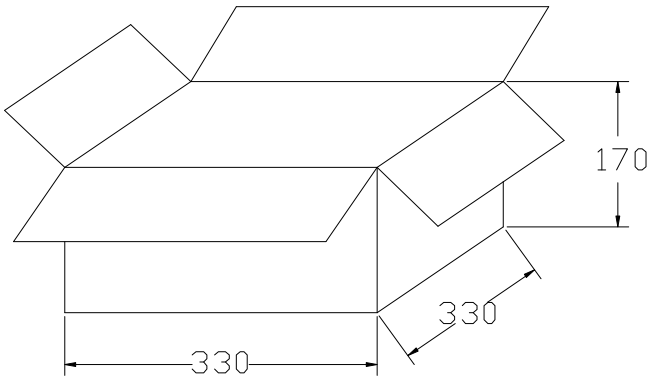
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	△L/L≦±5%	The product is placed in a chamber of 40±2℃, 90～95%RH for 96 hours. Measurement is done after the reaovery of 4～24 hours.
2	High temp endurance test	△L/L≦±5%	The product is placed in a chamber of 80±2℃, for 72 hours. Measurement is done after recovery of 4～24 hours.
3	Low temp test	△L/L≦±5%	The product is placed in a chamber of -40±2℃, for 96 hours. Measurement is done after recovery of 4～24 hours.
4	Thermal shock test	△L/L≦±5%	The specimens are placed in a chamber and the temp is then lowered to -20±2℃ for one hour. The temp will raised to +80±2℃ for one hour. This constitues 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(1,600 PCS)



OUT BOX (1,600 PCS)