SCOPE :

This specification applies to the current type Radial Leaded Inductor

for MCD-1012S-SERIES

PRODUCT INDENTIFICATION

MCD - 1012S - 101 J

① ② ③ ④

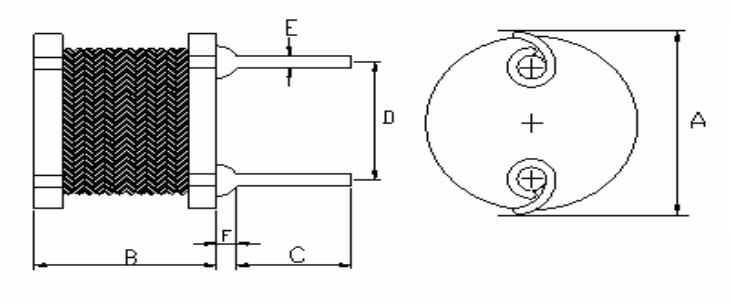
① Product Code

② Dimensions Code

③ Inductance Code

④ Tolerance Code

(1) SHAPES AND DIMENSIONS



A: 12.0 Max. mm
B: 12.5 Max. mm
C: 15.0±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 Operate temperature range ..... －40℃～＋125℃

(Including self temp. rise)

(3)-2 Storage temperature range ..... －40℃～＋125℃

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					Isat(A)	Irms(A)
MCD-1012S-1R4□	1.4	M	100kHz/0.25V	4.8m	17.0	9.30
MCD-1012S-2R0□	2.0	M	100kHz/0.25V	7.8m	16.0	8.60
MCD-1012S-2R2□	2.2	M	100kHz/0.25V	8.7m	16.0	8.30
MCD-1012S-2R5□	2.5	M	100kHz/0.25V	9.7m	15.0	8.00
MCD-1012S-3R3□	3.3	M	100kHz/0.25V	10.4m	13.0	7.00
MCD-1012S-3R5□	3.5	M	100kHz/0.25V	10.4m	13.0	7.00
MCD-1012S-3R6□	3.6	M	100kHz/0.25V	10.4m	13.0	7.00
MCD-1012S-3R9□	3.9	M	100kHz/0.25V	12.1m	11.0	6.70
MCD-1012S-4R0□	4.0	M	100kHz/0.25V	12.1m	11.0	6.70
MCD-1012S-4R7□	4.7	M	100kHz/0.25V	15.0m	9.0	6.40
MCD-1012S-6R8□	6.8	M	100kHz/0.25V	15.7m	8.5	6.00
MCD-1012S-8R5□	8.5	M	100kHz/0.25V	18.0m	8.0	5.70
MCD-1012S-100□	10	K,M	100kHz/0.25V	21.0m	7.0	5.50
MCD-1012S-150□	15	K,M	100kHz/0.25V	31.2m	5.0	4.20
MCD-1012S-180□	18	K,M	100kHz/0.25V	38.2m	4.8	4.00
MCD-1012S-220□	22	K,M	100kHz/0.25V	44.1m	4.5	3.80
MCD-1012S-330□	33	K,M	100kHz/0.25V	66.5m	3.5	3.10
MCD-1012S-680□	68	K,M	100kHz/0.25V	0.10	2.9	2.30
MCD-1012S-820□	82	K,M	100kHz/0.25V	0.12	2.6	2.10
MCD-1012S-101□	100	J,K	100KHz/0.25V	0.15	2.2	2.00
MCD-1012S-121□	120	K,M	100KHz/0.25V	0.17	2.1	1.90
MCD-1012S-151□	150	K,M	100KHz/0.25V	0.21	1.9	1.80
MCD-1012S-221□	220	K,M	100KHz/0.25V	0.35	1.7	1.40
MCD-1012S-331□	330	K,M	100KHz/0.25V	0.52	1.4	1.20
MCD-1012S-391□	390	K,M	100KHz/0.25V	0.67	1.3	1.00
MCD-1012S-471□	470	K,M	100KHz/0.25V	0.70	1.0	0.80
MCD-1012S-561□	560	K,M	100KHz/0.25V	0.89	0.90	0.75
MCD-1012S-681□	680	K,M	100KHz/0.25V	0.96	0.80	0.70
MCD-1012S-821□	820	K,M	100KHz/0.25V	1.20	0.75	0.65
MCD-1012S-102□	1000	K,M	100KHz/0.25V	1.50	0.65	0.60
MCD-1012S-122□	1200	K,M	10KHz/0.25V	1.70	0.64	0.58
MCD-1012S-152□	1500	K,M	10KHz/0.25V	2.05	0.62	0.55
MCD-1012S-172□	1700	K,M	10KHz/0.25V	2.38	0.60	0.50
MCD-1012S-182□	1800	K,M	10KHz/0.25V	2.38	0.60	0.50
MCD-1012S-202□	2000	K,M	10KHz/0.25V	2.60	0.58	0.48
MCD-1012S-272□	2700	K,M	10KHz/0.25V	3.62	0.50	0.45
MCD-1012S-472□	4700	K,M	10KHz/0.25V	6.40	0.32	0.31

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

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

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

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

(4) RELIABILITY TEST METHOD

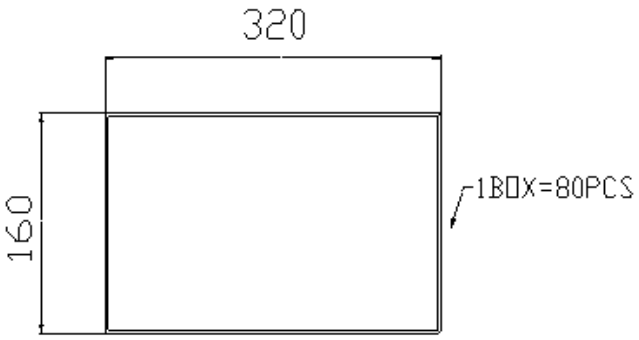
MECHANICAL

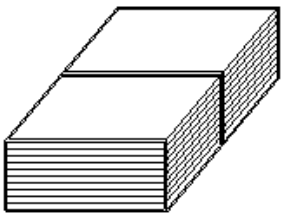
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the termnial electrode should be covered with solder.	Dipping: 245 ± 5 ℃, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg mininum until lead breakdown. The tensile force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

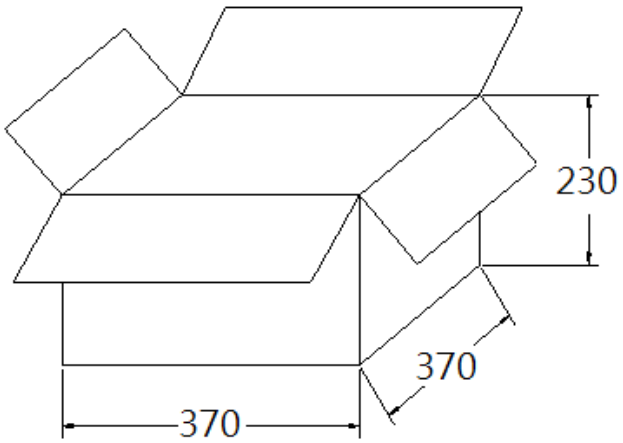
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	△L/L≦±5%	The product is placed in a chamber of 40±2℃, 90～95%RH for 96 hours. Measurement is done after the reaovery of 4～24 hours.
2	High temp endurance test	△L/L≦±5%	The product is placed in a chamber of 125±2℃, for 72 hours. Measurement 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 -40±2℃ for one hour. The temp will raised to +125±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)

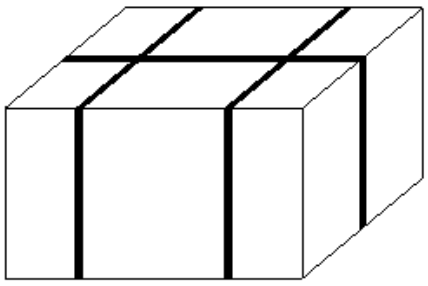




INNER BOX *20(1,600 PCS)



OUT BOX (1,600 PCS)



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