

SCOPE :

This specification applies to the current type Radial Leaded Inductor
for MCD-0810S-SERIES(U)

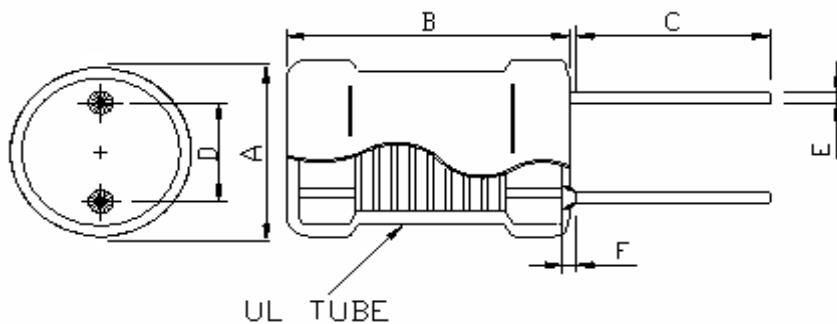
PRODUCT IDENTIFICATION

MCD - 0810S - 100 K U

① ② ③ ④⑤

- ① Product Code
- ② Dimensions Code
- ③ Inductance Code
- ④ Tolerance Code
- ⑤ UL Tube

(1) SHAPES AND DIMENSIONS



A:	10.5 Max.	mm
B:	12.5 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 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 ~ +105°C



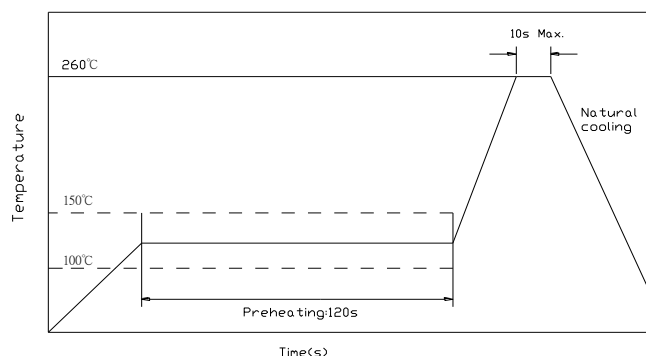
MAG.LAYERS

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					Isat(A)	Irms(A)
MCD-0810S-1R0□U	1.0	M	100kHz/0.25V	6.60m	18.0	9.00
MCD-0810S-1R2□U	1.2	M	100kHz/0.25V	7.70m	15.0	8.00
MCD-0810S-2R2□U	2.2	M	100kHz/0.25V	14.0m	12.0	7.00
MCD-0810S-3R3□U	3.3	M	100kHz/0.25V	16.0m	10.0	6.00
MCD-0810S-4R7□U	4.7	M	100kHz/0.25V	18.0m	8.00	5.30
MCD-0810S-6R8□U	6.8	M	100kHz/0.25V	25.0m	5.20	5.00
MCD-0810S-100□U	10	K,M	100kHz/0.25V	26.0m	5.00	4.50
MCD-0810S-150□U	15	K,M	100kHz/0.25V	68.0m	4.30	2.70
MCD-0810S-180□U	18	L,M	100kHz/0.25V	70.0m	4.10	2.70
MCD-0810S-220□U	22	K,M	100kHz/0.25V	74.0m	3.90	2.60
MCD-0810S-270□U	27	K,M	100kHz/0.25V	82.5m	3.70	2.50
MCD-0810S-330□U	33	K,M	100kHz/0.25V	85.0m	3.50	2.40
MCD-0810S-470□U	47	K,M	100kHz/0.25V	0.120	2.80	2.20
MCD-0810S-680□U	68	K,M	100kHz/0.25V	0.133	2.30	1.50
MCD-0810S-101□U	100	K,M	100kHz/0.25V	0.26	1.40	1.40
MCD-0810S-151□U	150	K	100kHz/0.25V	0.38	1.10	1.20
MCD-0810S-181□U	180	K,M	100kHz/0.25V	0.44	1.00	1.10
MCD-0810S-221□U	220	K	100kHz/0.25V	0.50	0.90	1.00
MCD-0810S-271□U	270	K,M	100kHz/0.25V	0.60	0.83	0.90
MCD-0810S-331□U	330	K,M	100kHz/0.25V	0.78	0.78	0.80
MCD-0810S-391□U	390	K,M	100kHz/0.25V	0.85	0.70	0.75
MCD-0810S-471□U	470	K,M	100kHz/0.25V	1.08	0.63	0.70
MCD-0810S-561□U	560	K,M	100kHz/0.25V	1.19	0.60	0.65
MCD-0810S-681□U	680	K,M	100kHz/0.25V	1.59	0.55	0.58
MCD-0810S-821□U	820	K,M	100kHz/0.25V	1.88	0.50	0.50
MCD-0810S-102□U	1000	K	100kHz/0.25V	2.30	0.45	0.45
MCD-0810S-112□U	1100	K	100kHz/0.25V	2.60	0.43	0.43
MCD-0810S-122□U	1200	K	100kHz/0.25V	3.20	0.40	0.40
MCD-0810S-152□U	1500	K,M	100kHz/0.25V	3.40	0.30	0.37
MCD-0810S-182□U	1800	K,M	100kHz/0.25V	3.61	0.28	0.36
MCD-0810S-222□U	2200	K	1kHz/0.25V	3.90	0.27	0.35
MCD-0810S-272□U	2700	K,M	10kHz/0.25V	4.30	0.26	0.31
MCD-0810S-302□U	3000	K,M	10kHz/0.25V	5.20	0.26	0.29
MCD-0810S-332□U	3300	K	10kHz/0.25V	6.80	0.26	0.27
MCD-0810S-362□U	3600	K,M	1kHz/0.25V	7.40	0.25	0.25
MCD-0810S-372□U	3700	K,M	1kHz/0.25V	10.0	0.25	0.22
MCD-0810S-382□U	3800	K,M	1kHz/0.25V	10.0	0.25	0.22
MCD-0810S-562□U	5600	K	1kHz/0.25V	11.1	0.22	0.19
MCD-0810S-602□U	6000	K,M	1kHz/0.25V	12.5	0.21	0.18
MCD-0810S-682□U	6800	K	1kHz/0.25V	14.5	0.20	0.17
MCD-0810S-802□U	8000	K	1kHz/0.25V	19.0	0.18	0.15
MCD-0810S-842□U	8400	K	1kHz/0.25V	19.0	0.18	0.15
MCD-0810S-333□U	33000	K,M	1kHz/0.25V	68.0	0.07	0.08
MCD-0810S-473□U	47000	K,M	1kHz/0.25V	100.0	0.06	0.07

- ※ 1. □ Specify the inductance tolerance, K(±10%),L(±15%), M(±20%)
- ※ 2. 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.

FLOW SOLDERING



(4) RELIABILITY TEST METHOD MECHANICAL

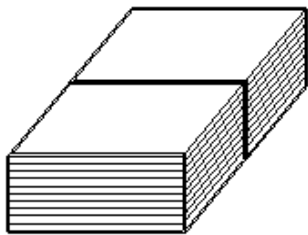
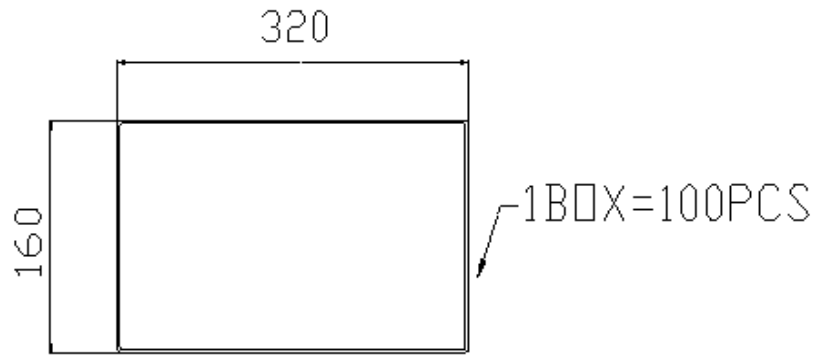
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Solderability test	More than 90% of the terminal electrode should be covered with solder.	Dipping: 245 ± 5 °C, 3 ± 1 seconds
2	lead tensile strength test	1.0 Kg MIN.	The lead of product is pulled with a load of 1.0kg minimum until lead breakdown. The tensile force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

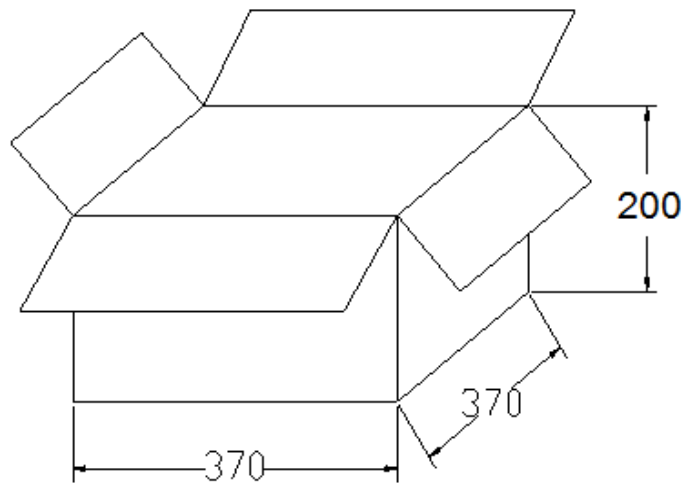
NO.	ITEMS	SPECIFICATIONS	CONDITIONS
1	Humidity endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of 40±2°C, 90~95%RH for 96 hours. Measurement is done after the reaovery of 4~24 hours.
2	High temp endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of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



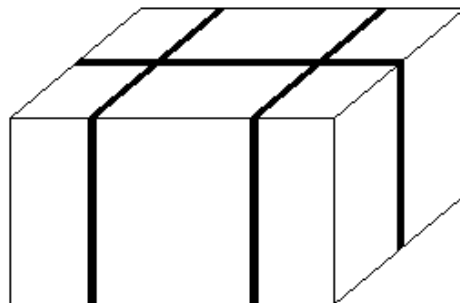
(5) PACKAGE SPECIFICATION (mm)



INNER BOX *20 (2,000 PCS)



OUT BOX (2,000 PCS)



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

