

SCOPE :

This specification applies to the current type Radial Leaded Inductor
for MCD-895C-SERIES

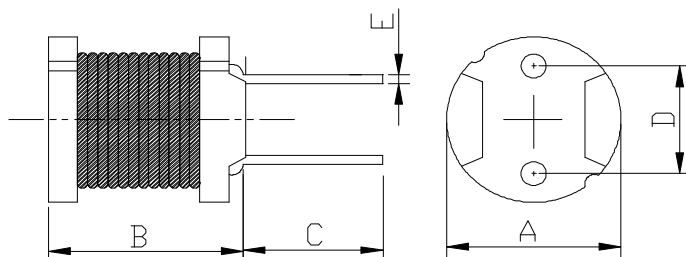
PRODUCT IDENTIFICATION

MCD - 895C - 100 M

① ② ③ ④

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

(1) SHAPES AND DIMENSIONS



A: 7.8 ± 0.5	mm
B: 9.5 Max.	mm
C: 15 ± 2.0	mm
D: 5.0 ± 0.5	mm
E: $\phi 0.65 \pm 0.1$	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 $+60^{\circ}\text{C}$ Max.
- (3)-2 Operate temperature range $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
(Including self temp. rise)
- (3)-3 Storage temperature range $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

TABLE 1

MAGLAYERS PT/NO.	Inductance L(μH)	Percent Tolerance	Test Frequency	Resistance RDC(Ω)Max.	Rated DC Current	
					IDC1(A)	IDC2(A)
MCD-895C-100	10	M	100kHz/0.25V	40m	2.6	4.10
MCD-895C-150	15	M	100kHz/0.25V	50m	2.1	3.80
MCD-895C-220	22	M	100kHz/0.25V	60m	1.7	3.30
MCD-895C-470	47	K,M	100kHz/0.25V	0.10	1.3	2.20
MCD-895C-560	56	K,M	100kHz/0.25V	0.11	1.2	2.00
MCD-895C-221	220	K,M	100kHz/0.25V	0.38	0.64	1.10
MCD-895C-471	470	K,M	100kHz/0.25V	0.89	0.43	0.70
MCD-895C-561	560	K,M	100kHz/0.25V	1.01	0.40	0.63
MCD-895C-102	1000	K,M	100kHz/0.25V	1.84	0.30	0.50
MCD-895C-152	1500	K,M	10kHz/0.25V	2.80	0.23	0.42
MCD-895C-222	2200	K,M	10kHz/0.25V	4.21	0.19	0.30
MCD-895C-332	3300	K,M	10kHz/0.25V	6.16	0.15	0.25
MCD-895C-103	10000	K,M	10kHz/0.25V	22.0	89m	0.14
MCD-895C-473	47000	K,M	10kHz/0.25V	96.4	38m	70m

※ 1. ☐ Specify the inductance tolerance, K(±10%), M(±20%)

※ IDC1 : Based on inductance change ($\Delta L/L_o$: drop 10% Max.)@ ambient temp. 25℃

IDC2 : Based on temperature rise (ΔT : 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 terminal electrode should be covered with solder.	Dipping: $245 \pm 5^{\circ}\text{C}$, 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 hours, totally 6 hours.
4	Soldering heat resistance test	Visual:OK Circuit:OK	The leads of product are dipped into a solder pot of $260 \pm 5^{\circ}\text{C}$ for a duration of 10 ± 1 sec. 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 $40 \pm 2^{\circ}\text{C}$, 90~95%RH for 96 hours. Measurement is done after the recovery of 4~24 hours.
2	High temp endurance test	$\Delta L/L \leq \pm 5\%$	The product is placed in a chamber of $80 \pm 2^{\circ}\text{C}$, 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 $-40 \pm 2^{\circ}\text{C}$, 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 $-20 \pm 2^{\circ}\text{C}$ for one hour. The temp will raised to $+80 \pm 2^{\circ}\text{C}$ 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)

