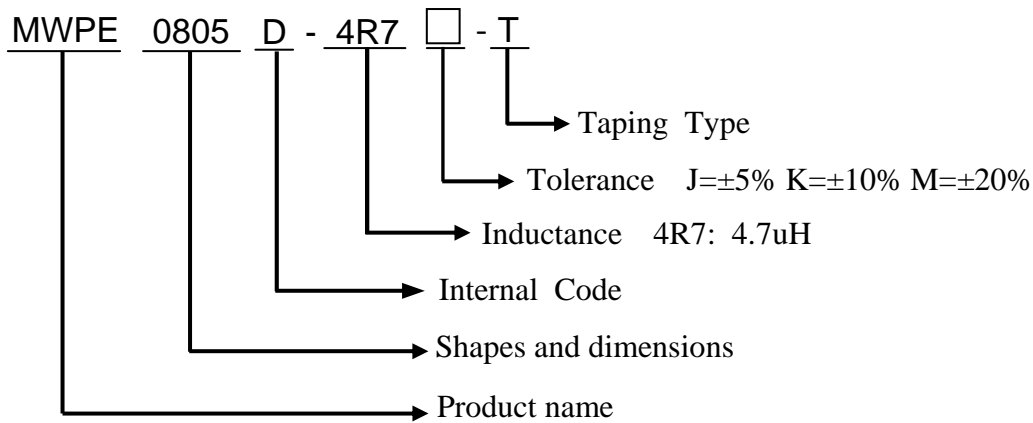


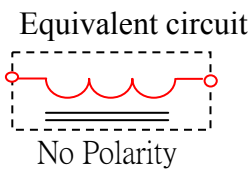
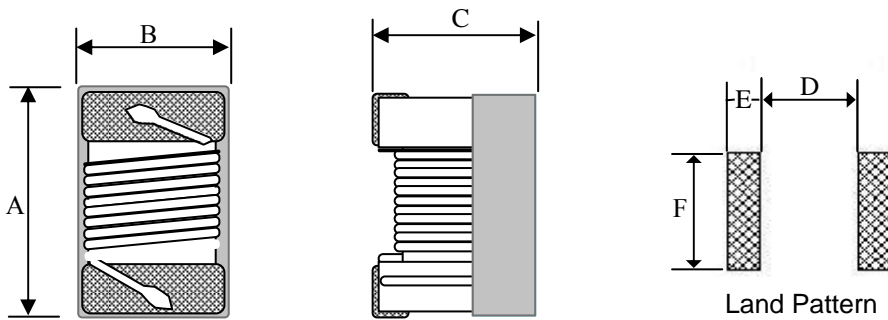
1. Scope

This specification applies wire wound power inductors MWPE0805D-4R7K-T to be delivered to user.

2. Product Identification



3. Shapes and Dimensions



- A max. : 2.40 mm
- B max. : 1.73 mm
- C max. : 1.52 mm
- D ref. : 0.76 mm
- E ref. : 1.02 mm
- F ref. : 1.78 mm

4. Electrical Characteristics

Customer Part Number	Our Product Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Typ.	SRF min. (MHz)	RDC max (Ω)	RMS max. (mA)
	MWPE0805D-4R7□-T	4.7/7.9	<div style="border: 1px solid black; padding: 2px;"> <div style="border-bottom: 1px solid black; height: 10px; width: 100%;"></div> <div style="border-bottom: 1px solid black; height: 10px; width: 100%; text-align: center;">K</div> <div style="border-bottom: 1px solid black; height: 10px; width: 100%; text-align: center;">M</div> </div>	14/7.9	51	0.56	520

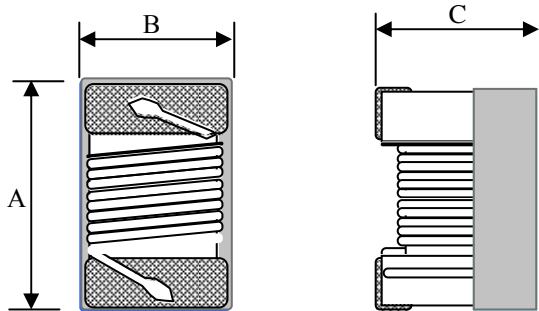
5. Test Instruments

ITEM	SPEC. RANGE	TEST FREQ.	TEST INSTRUMENTS
L (μH)	4.7±10%	7.9MHz	HP4286A
Q(品质系数)	14 MIN	7.9MHz	
DCR (Ω)	0.56 MAX		502BC
Irms (mA)	520 MAX		VR116+VR7210
SRF (MHz)	51 MIN		E5071C ENA

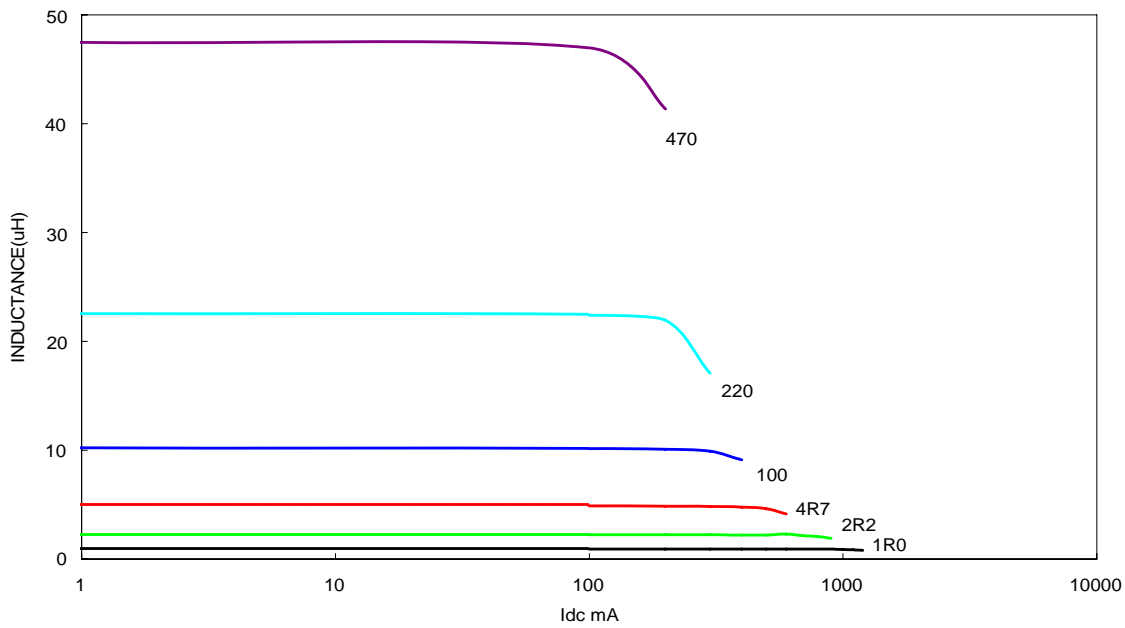
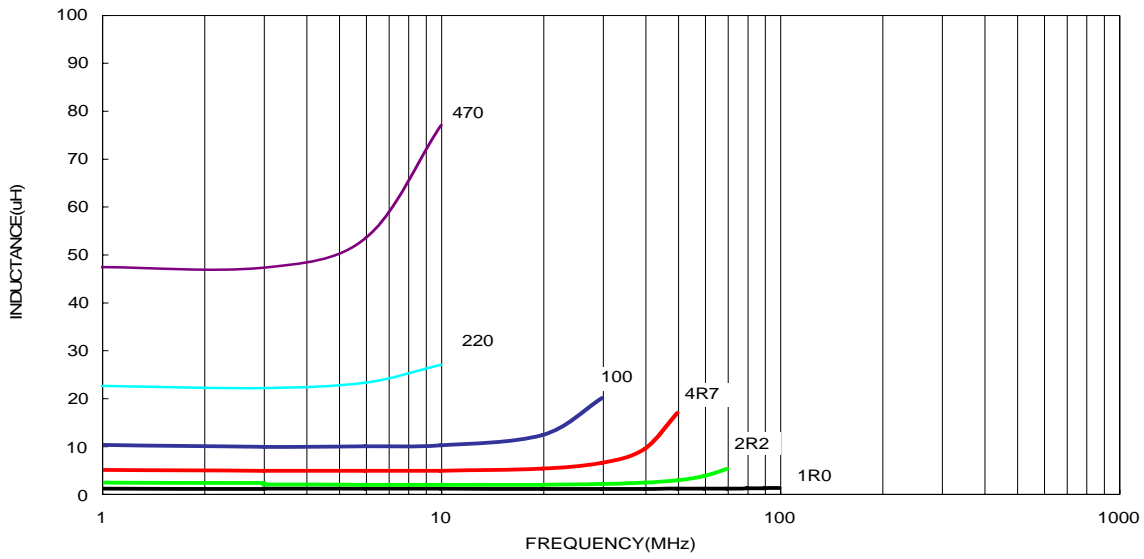
- a. Storage temp.: -40°C ~ +85°C ,R.H.: 30% ~ 70%,Operating temp.: -40°C ~ +85°C
- b. Moisture sensitivity level (MSL) 2 (1 year floor life at < 30°C /85% relative humidity).
- c. Failures in time(FIT)/Mean Time Between Failures(MTBF) 38 per billion hours/26,315,789 hours,calculated per Telcordia SR-332.

6. Test Data For Samples

TEST ITEM	L	Q(品质系数)	DCR	A	B	C
	(μH)	(min)	(Ω)	(mm)	(mm)	(mm)
CON.	7.9MHz	7.9MHz	At 25°C	2.40MAX	1.73MAX	1.52MAX
SPEC.	4.7 \pm 10%	14 MIN	0.56 MAX			
1	4.71	16.0	0.47	2.14	1.50	1.22
2	4.69	18.0	0.49	2.15	1.52	1.20
3	4.68	17.0	0.48	2.14	1.51	1.21
4	4.67	16.0	0.47	2.16	1.51	1.20
5	4.72	18.0	0.49	2.15	1.50	1.22
6	4.73	17.0	0.48	2.14	1.51	1.21
7	4.69	16.0	0.47	2.15	1.52	1.20
8	4.69	18.0	0.49	2.16	1.50	1.22
9	4.68	17.0	0.47	2.16	1.52	1.21
10	4.72	16.0	0.48	2.14	1.51	1.20
X	4.70	16.90	0.48	2.15	1.51	1.21

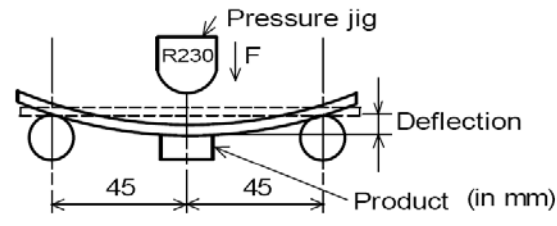


7. Inductance Characteristics



8. Reliability Test

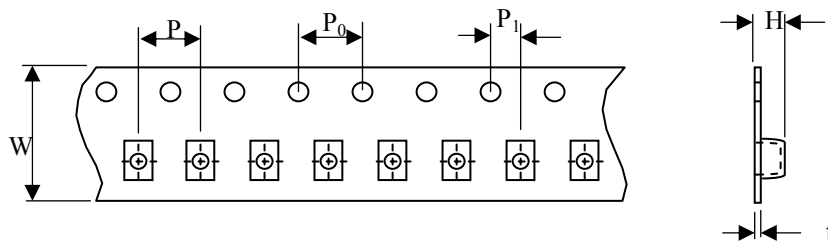
TEST ITEM	SPECIFICATION	TEST CONDITION
Rating current	According to product specifications	Current sources:33010D
Inductance	According to product specifications	Test Frequency:0.252~250MHz Test Equipment:HP4291A HP4286A HP4287A HP4284A Test Fixture:16193Aor16334A
Q	According to product specifications	Test Frequency:0.252~1500MHz Test Equipment:HP4291A HP4286A HP4287A , Test Fixture:16193A or 16334A
RDC	According to product specifications	Test Equipment:HP4263B
SRF	According to product specifications	Test Equipment:HP4291A Test Fixture:16193A
Solderability	The metalized area must have more then 90%of solder coverage	Soldering Temp:230±5℃ Dipping time:5±1S
Resistance to soldering heat	No evidence of mechanical damage, The mealized arer must have more then 75% of solder coverage . Inductance change less than ±5% Q change less than ±10% .	Soldering Temp:260±5℃ Dipping time:10±1S
Thermal Shock	No evidence of mechanical damage,Inductance change less than±5%, Q change less than±10%	A cycle contain: Step 1: -40℃ ,30Min Step 2: 85℃ , 30Min Cycle Times:10

TEST ITEM	SPECIFICATION	TEST CONDITION
High Temperature Storage	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Test Temperature: $125\pm 2^{\circ}\text{C}$ (Ceramic core) $85\pm 2^{\circ}\text{C}$ (Ferrite core) Test Time: 96 ± 2 Hours
Low Temperature Storage	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Test Temperature: $-40\pm 2^{\circ}\text{C}$ Test Time: 96 ± 2 Hours
Moisture Resistance	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Test Temperature: $50\pm 2^{\circ}\text{C}$ Test Time:100Hours relative humidity:90~95%
Vibration	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Amplitude:1.5mm X Y、Z each direction for 1Hour and 45min Frequency range:10~55~10Hz(min)
Component Adhesion	No evidence of mechanical damage , No evidence of peel off or broken , keep continuity of Winding	Force:2Kg Test Time: 5 ± 1 sec
Resistance to bend	No evidence of mechanical damage	Camber:20mm Test Board:Glass-Epoxy board Thickness:8mm 
Life	No evidence of mechanical damage, Inductance change less than $\pm 5\%$, Q change less than $\pm 10\%$	Test Temperature: $85\pm 2^{\circ}\text{C}$ Test Time:1000Hours with rating current

9. Packaging

The packaging must be done not to receive any damage during transporting and storing.

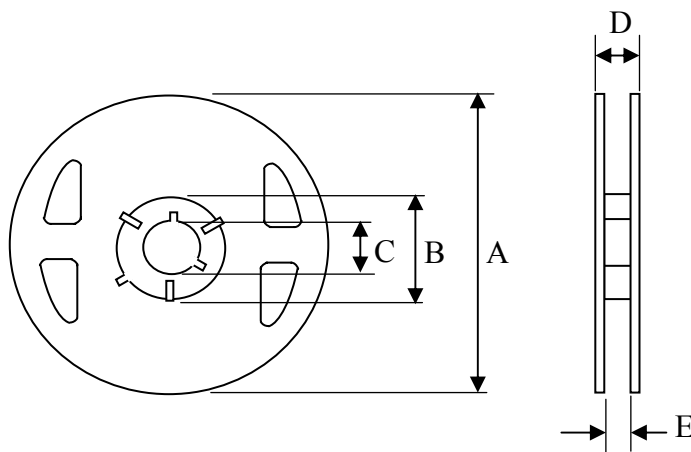
9-1 Tape dimensions



(Dimensions in mm)

Symbol	W	P	P_0	P_1	H	t
Dimension	8	4	4	2	2.0	0.23

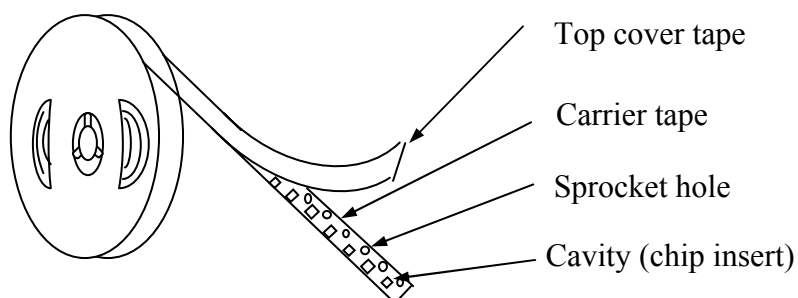
9-2 Reel dimensions



(Dimensions in mm)

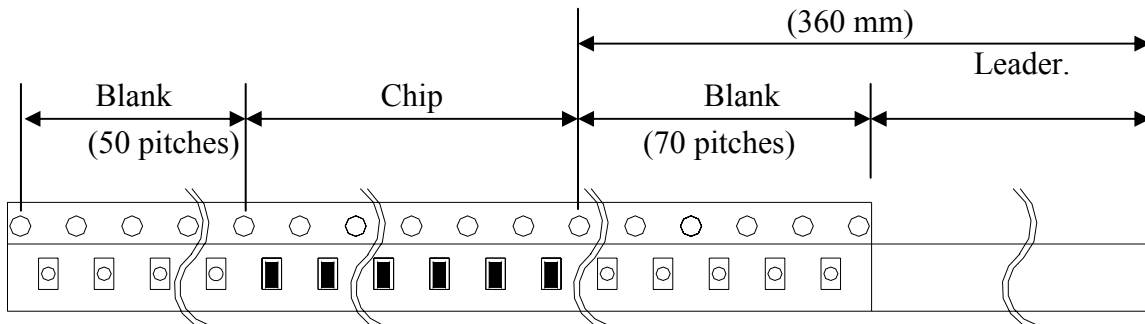
Symbol	T
A	180
B	60
C	13
D	14.4
E	8.4

9-3 Tapping figure



9-4 Packaging Form

There shall not continuation more than two vacancies of the product.



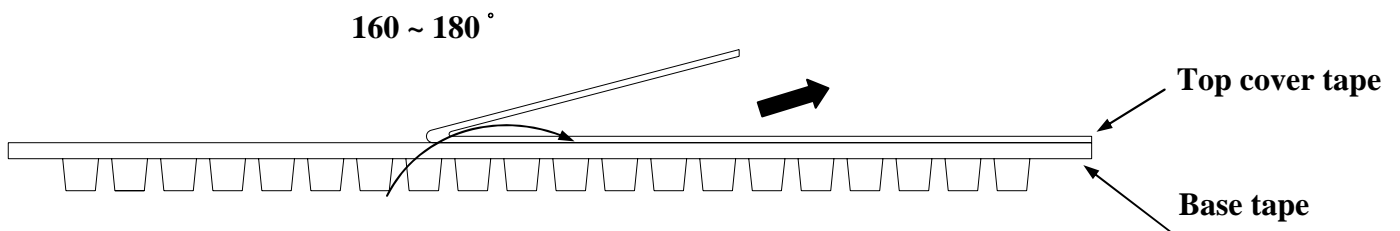
9-5 Cover Tape Peel Strength

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa

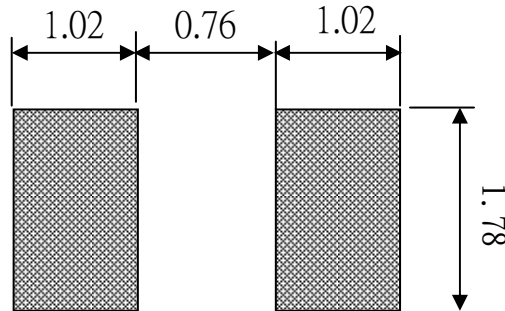


9-6 Packing Quantity

φ180 mm reel type : 2,000 pcs./reel

10. Recommended Soldering Conditions (Please use this product by reflow soldering)

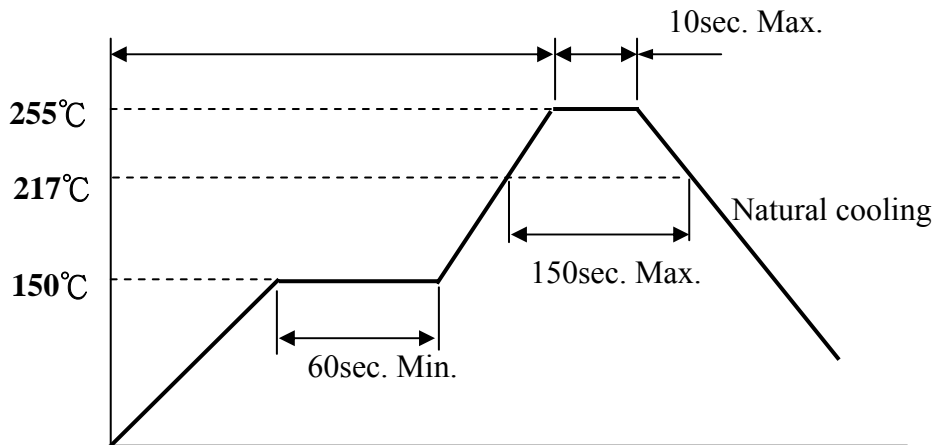
10-1 Recommended Footprint



Unit: mm

10-2 Recommended Reflow Pattern

Reflow at 260°C/3 Cycles



10-3 Iron Soldering

Use a solder iron of less than 30W when soldering, do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode.
4 seconds max. at 260°C.

11. Attention in Case of Using

In case of using product, please avoid following matters:

- Splashing water or salt water
- Dew condensates
- Toxic gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.