MAGNETIC TECHNOLOGY WORLDWIDE SDN BHD/ KEENTECH

Common Mode Filter
TM Series

Features

- Powerful component with composite co-fired material
- High coupling constant
- Small size and low profile
- Small dimension enable higher density packaging

Applications

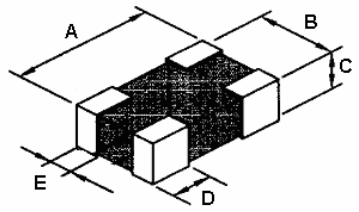
- Noise suppression of signal lines in high speed and high density digital equipment
- Personal computer, Facsimiles, modem, and digital telephones

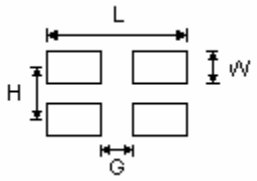
Product Identifications

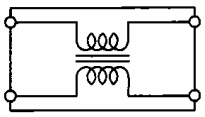
MTM	□□□□□□	□	□□□
(1)	(2)	(3)	(4)

(1) Product Symbol: MTW's Wound Chip Inductors
(2) Dimensions: Length (A) × Width (B) × Thickness (C)
(3) Material Code
(4) Impedance

Shapes and Dimensions







Equivalent Circuit

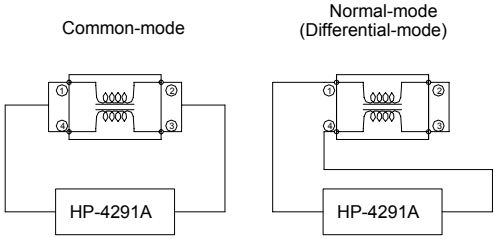
Dimensions in mm

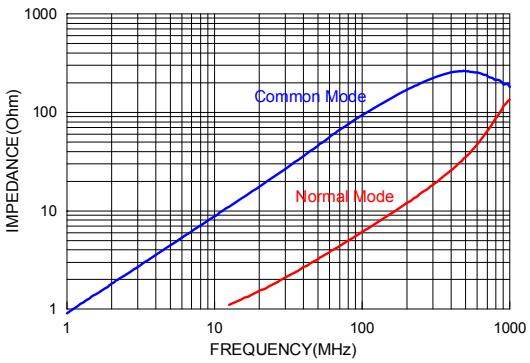
TYPE	A	B	C	D	E	L	W	G	H
201209	2.00±0.20	1.25±0.20	0.90±0.20	0.50±0.20	0.30±0.20	2.60	0.40	1.10	0.80

Electrical Characteristics — All Type

Part Number	Impedance (Ω) ±25% At 100MHz	DC Resistance (Ω) MAX.	Rated Current (mA) MAX.	Rated Voltage (Vdc)	Withstand Voltage (Vdc)	Insulation Resistance (MΩ)
MTM201209U900	90	0.70	400	10	25	200

Electrical Charts





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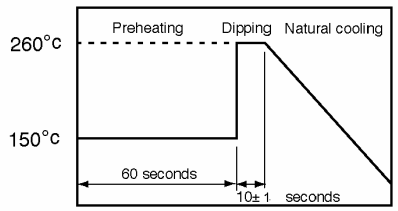
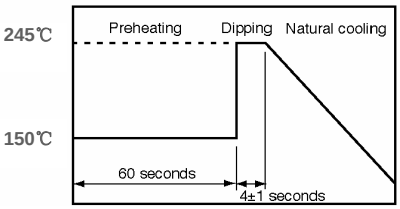
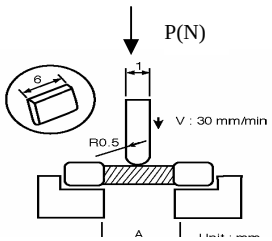
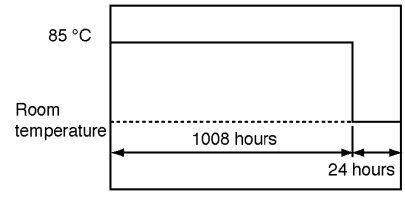
Reliability Test

Item	Performance	Test condition
Operating temperature range	-55 °C to + 125 °C	
Storage temperature and umidity ranges	40 °C MAX., 70% RH MAX.	
Soldering heat resistance	The chip shall not be cracks. More than 75% of terminal electrode shall be covered with solder.	Preheat: 150 °C, 60 seconds Solder temperature : 260 ± 5 °C Flux: Rosin Dip time: 10 ± 1 seconds 
Solderability	More than 90% of the terminal electrode shall be covered with new solder.	Preheat: 150 °C, 60 seconds Solder temperature: 245 ± 5 °C Flux: Rosin Dip time: 4 ± 1 seconds 
Bending strength	The body shall not be damaged by the forces applied on the right conditions. 	<table><tr><th>Type</th><th>A (mm)</th><th>P (kgf)</th></tr><tr><td>TM201209</td><td>1.4</td><td>1.0</td></tr></table>
High temperature resistance	Appearance: Ferrite shall not be damaged. Impedance: Within±20% of the initial value.	Temperature: 85±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min. 

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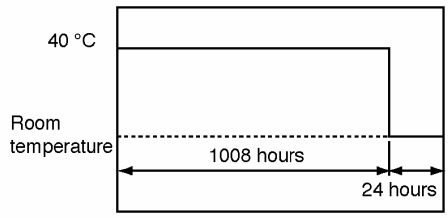
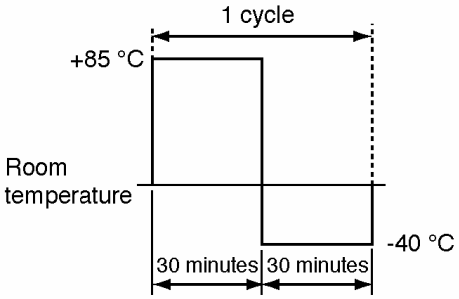
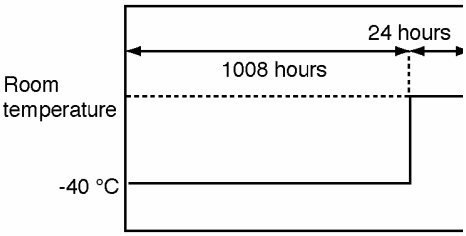
Reliability Test

Item	Performance	Test condition
Humidity resistance	Appearance: Ferrite shall not be damaged. Impedance: Within±20% of the initial value	Humidity: 90 to 95% RH Temperature: 40±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min.
Thermal Shock	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall not be allowed. Impedance: Within±20% of the initial value	Temperature: -40℃, +85℃, kept stabilized for 30 minutes each Cycle: 100 cycles Measurement: After placing for 24 hours min.
Low temperature storage life test	Appearance: Cracking, chipping or any other defects harmful to the characteristics shall not be allowed. Impedance: Within±20% of the initial value.	Temperature: -40±2℃ Testing time: 1008±12 hours Measurement: After placing for 24 hours min.



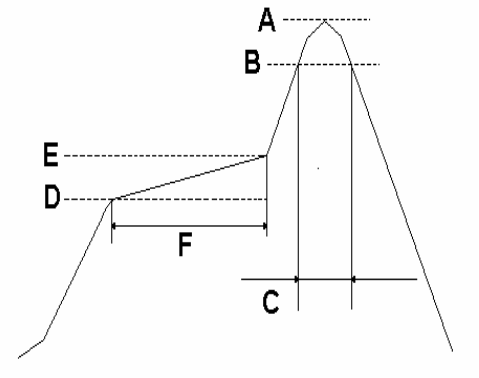




✱ Recommended Soldering Conditions

(Reflow Temperature Profile) Lead-Free

A	260 ± 5 ℃
B	230 ± 5 ℃
C	30 ± 10 sec
D	150 ℃
E	180 ℃
F	90 ± 30 sec



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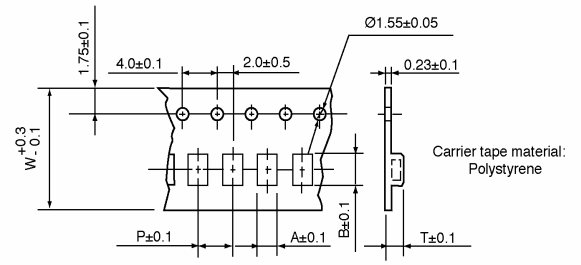
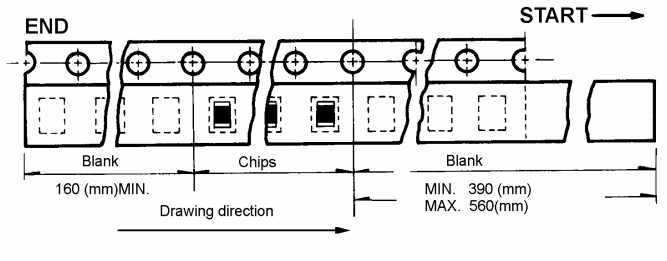
Packaging

★ **Carrier tape material：Plastic**

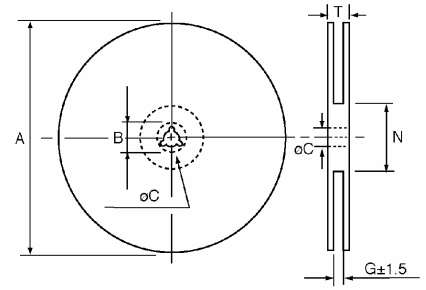


Material：Plastic (Dimensions in mm)						
TYPE	A	B	W	P	T	CHIPS / REEL
201209 (0805)	1.42	2.25	8.00	4.00	1.04	4000 / 7”



★ **Reel dimensions**

Material：Plastic



Dimensions in mm

TYPE	8mm
A	178±2
B	21.0±0.8
C	13.0±0.8
G	10.0
N	75
T	12.5