



SMD COILS

SMD EMI Filters Common Mode Choke - TCPWC Series / 共模EMI滤波电感

► EMI Filter Choke Features

Small Chip Inductor with Ferrite Core and Two Line Types Wire wound.

Highly Effective in Noise Suppression, High Common-mode Impedance at Noise Band and Low Differential-Mode Impedance at Signal Band.

Low Differential-Mode Impedance with High Coupling Factor, There is Almost No Distortion on High Speed Signal.

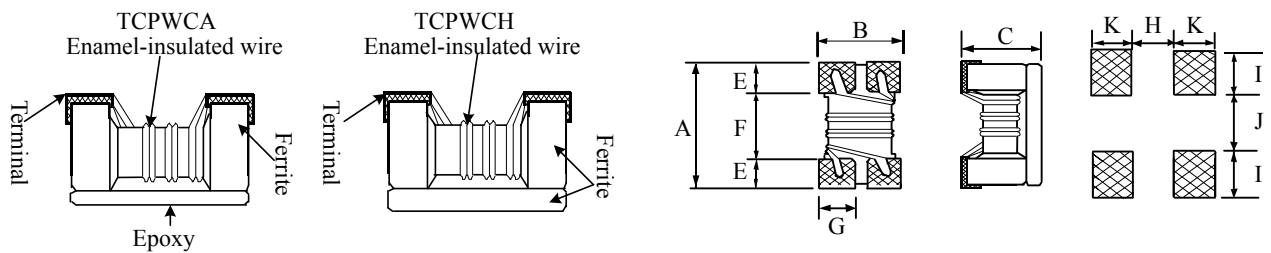
► EMI Filter Choke Applications

EMI Radiation Noise Suppression for Any Electronic Device.

USB Line for Personal Computers and Peripheral.

IEEE 1394 Line for Personal Computers ,DVC,STB; LCD Panels, Low-Voltage Differential Signal (LVDS).

► EMI Filter Choke Configurations & Dimensions (unit: mm)



► EMI Filter Choke Dimensions (Unit: mm)

TYPE	A	B	C	E	F	G	H	I	J	K
TCPWCA05	2.1±0.2	1.2±0.2	1.0±0.2	0.45	1.2	0.4	0.8	0.4	0.4	0.90
TCPWCH05	2.0±0.2	1.2±0.2	1.2±0.2	0.45	1.2	0.4	0.8	0.4	0.4	0.90
TCPWCH06	3.2±0.2	1.6±0.2	1.8±0.2	0.60	2.0	0.6	1.6	0.6	0.4	1.05

► Electrical Characteristics for TCPWC Series EMI Filter Choke

Part Number	Impedance (Ω) @100MHz	DCR (Ω) (max)	Rated Current (mA)(max)	Rated Voltage (V)(DC)	Withstanding Voltage (V)(DC)	Insulation Resistance (MΩ)(min)
TCPWCA05MT670	67	0.35	330	50	125	10
TCPWCA05MT900	90	0.35	330	50	125	10
TCPWCA05MT121	120	0.45	280	50	125	10
TCPWCA05MT181	180	0.50	250	50	125	10
TCPWCH05MT670	67	0.25	400	50	125	10
TCPWCH05MT900	90	0.35	330	50	125	10
TCPWCH05MT121	120	0.30	370	50	125	10
TCPWCH05MT181	180	0.35	330	50	125	10
TCPWCH05MT201	200	0.35	330	50	125	10
TCPWCH05MT261	260	0.40	300	50	125	10
TCPWCH05MT371	370	0.40	280	50	125	10
TCPWCH06MT900	90	0.30	370	50	125	10
TCPWCH06MT161	160	0.40	340	50	125	10
TCPWCH06MT261	260	0.50	310	50	125	10
TCPWCH06MT601	600	0.80	260	50	125	10
TCPWCH06MT102	1000	1.00	230	50	125	10
TCPWCH06MT222	2200	1.20	200	50	125	10

Note: Operating Temp.: -40°C+85°C.

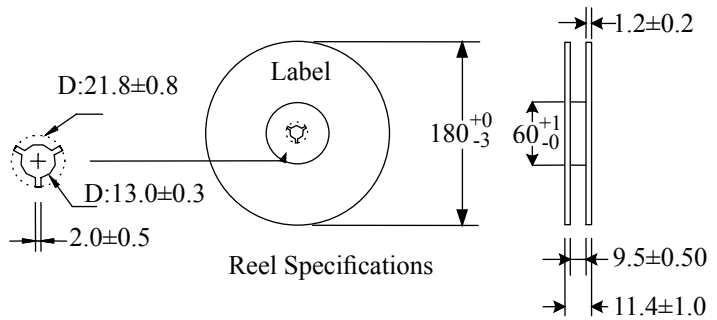




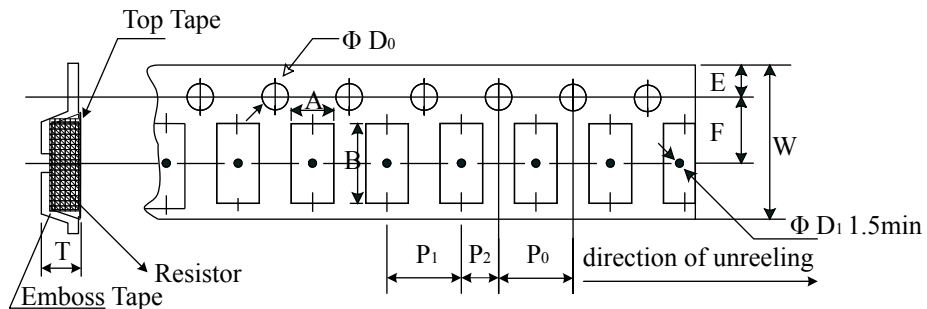
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► EMI Filter Choke Packaging Quantity & Reel Specifications (Unit: mm)

Type	Emboss Plastic Tape (PCS)
TCPWCA05	2000
TCPWCH05	2000
TCPWCH06	2000

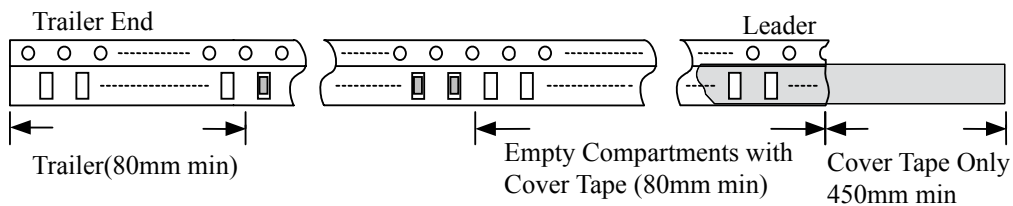


► EMI Filter Choke Emboss Plastic Tape Specifications (Unit: mm)



Codes	A ±0.10	B ±0.05	W ±0.20	E ±0.10	F ±0.10	P0 ±0.10	P1 ±0.10	P2 ±0.10	ΦD0 +0.10	t ±0.10
TCPWCA05	1.40	2.55	8.0	1.75	3.5	4.00	4.00	2.00	1.50	1.35
TCPWCH05	1.40	2.55	8.0	1.75	3.5	4.00	4.00	2.00	1.50	1.35
TCPWCH06	1.90	3.50	8.0	1.75	3.5	4.00	4.00	2.00	1.50	2.10

► EMI Filter Choke Leader / Tape



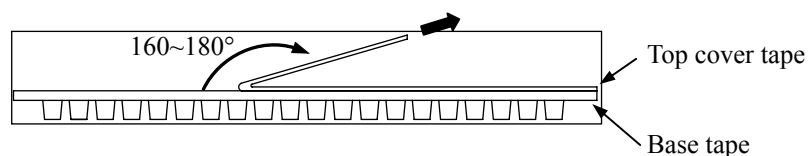
► Peel-off Force

The force for tearing off cover tape is 0.05 ~ 0.69(N) in the arrow direction at the following conditions:

Temperature: 5 ~ 35°C.

Humidity: 45 ~ 85%.

Atmospheric pressure: 860 ~ 1060 hpa.





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► Environmental Characteristics - EMI Filter Choke

Test Items	Specifications	Test Conditions / Test Methods
Electrical Performance Test		
Impedance	Refer to standard electrical characteristic spec.	LCR Meter HP 4291B
DC Resistance (RDC)		Micro-Ohm meter (GOM-801G)
Withstand Voltage (VDC)	Component should not be damaged	Test Voltage: 2.5 Times Rated Voltage; Testing Time: 60 sec. Charge Current: 0.5mA
Rated Voltage (VDC)		Test Voltage: Rated Voltage; Testing Time: 1 to 5 sec; Charge Current: 1mA
Insulation Resistance (I.R.)		Charge Current: 1 minute 10M ohm min
Mechanical Performance Test		
Component Adhesion (push Test)	Base: 0805 ≥ 2 Lbs Cover: 0805 ≥ 1 Lbs Base: 1206 ≥ 4 Lbs Cover: 1206 ≥ 2 Lbs	The component should be soldered (232°C±5°C for 10 sec.) totinned copper substrate. Applied force gauge to the side of component It must withstand force of 2 or 4 pounds without failure of the component.
Drop Test	Component should not be damaged	Dropping chip by each side and corner; Drop 10 times in total Drop height:100cm; Drop weight:125g
Solderability Test	The terminal should at least be 90% covered with solder	The component shall be dipped in a melted solder bath at 235°C±5°C for 5 seconds.
Vibration Test (Low Frequency)	Component should not be damaged	1. Amplitude: 1.5 m/m; 2. Frequency: 10-55-10 Hz(1min); 3. Direction: X, Y, Z; 4. Duration: 2 Hrs/X, Y, Z.
Climatic Test		
Low Temperature Storage Test	Impedance change: Within±20% Without distinct damage in ppearance.	1. Temp: -40°C±2°C; 2. Time: 1000±48 Hours; 3. Component should be tested after 1 hour at room temperature.
Thermal Shock Test		 Total: 5 Cycles
High Temperature Storage Test		1. Temp: 85°C±2°C; 2. Time: 1000±48 Hours; 3. Component should be tested after 1 hour at room temperature.
Humidity Test		1. Temp: 40°C±2°C; 2. R.H.: 90%~95%; 3. Time: 48±2 Hours
High Temperature Load Life Test		1. Temp: 85°C±2°C; 2. Time: 96±12 Hours; 3. Load: Allowed DC Current
Low Temperature Load Life Test	1. Temp: -40°C±2°C; 2. Time: 96±12 Hours; 3. Load: Allowed DC Current	

Note: Storage Temperature: 25±3°C; Humidity:<80%RH

► How to Order



① SMD EMI Filters Common Mode Choke

② Shielding Type

Code	Shielding Type
A	Non Shielding
H	Shielding

③ Dimensions (L×W) (mm)

Code	Dimensions(L×W)	EIA
05	2.10×1.20	0805
06	3.20×1.60	1206

④ Impedance Tolerance: M (±20%)

⑤ Packaging

Code	Packaging
T	Taping Reel
B	Bulk

⑥ Impedance

Code	Impedance
900	90Ω
121	120Ω
102	1000Ω
222	2200Ω