multicomp PRO

RoHS Compliant



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.
- Operating temperature -40°C~85°C

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)

Construction



1	Terminal
2	Ferrite
3	Enamel-insulated Wire



Dimensions



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Equivalent Circuit

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Unit : mm

Case Code	A	В	с	E	F	G	н	I	J	к	Weight (g) (1000pcs)
0805	2±0.2	1.2±0.2	1.2±0.2	0.45	1.2	0.4	0.8	0.4	0.4	0.9	19
1206	3.2±0.2	1.6±0.2	1.9±0.2	0.6	2	0.6	1.6	0.6	0.4	1.05	53.3

Standard Electrical Specifications

0805 / Standard Type

Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Insulation Resistance (MΩ) min.
90	±20%	100	0.35	330	50	125	10
120	±20%	100	0.3	370	50	125	10
220	±20%	100	0.35	330	50	125	10
370	±20%	100	0.4	280	50	125	10

1206 / Standard Type

Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Resistance (MΩ) min.
90	±20%	100	0.30	370	50	125	10
1000	±20%	100	1.00	230	50	125	10
2200	±20%	100	1.20	200	50	125	10

Characteristics (Impedance vs. Frequency)-0805



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Chip Common Mode Chokes

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Characteristics (Impedance vs. Frequency)-1206



Electrical Performance Test

Items	Requirement	Test Conditions / Test Methods
Impedance		LCR Meter HP 4291B
DC Resistance DCR		Micro-Ohm meter (GOM-801G)
Withstand Voltage (VDC)	Refer to standard electrical	Test Voltage: 2.5 Times Rated Voltage Testing Time: 60 seconds Charge Current: 0.5mA
Rated Voltage (VDC)	Component should not be damaged	Test Voltage: Rated Voltage Testing Time: 1 to 5 seconds Charge Current: 1mA
Insulation Resistance (I.R)		Charge Current: 1 minute 10m Ω min.



Mechanical Performance Test

Items	Requirement	Test Conditions / Test Methods
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.) to tinned 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	Component should not be damaged	Dropping chip by each side and corner. Drop 10 times in total Drop height: 100 cm Drop weight: 125 g
Solderability	The terminal should at least be 90% covered with solder	The component shall be dipped in a melted solder bath at 245 \pm 5 for 3 seconds
Vibration Test (Low Frequency)	Component should not be damaged	 Amplitude: 1.5 m/m Frequency: 10-55-10Hz (1min.) Direction: X, Y, Z Duration: 2 Hrs/X, Y, Z

Storage Temperature: 15~28°C; Humidity < 80%RH

Climatic Test

Items	Requirement	Test Conditions / Test Methods				
Low Temperature Storage		 Temp: -40°C ±2°C Time: 1000 ±48 Hours Component should be tested after 1hour at room temperature 				
		$\xrightarrow{\text{ROOM TEMP}} \xrightarrow{25 \pm 2^{\circ}C} \xrightarrow{30MINS}$				
Thermal Shock	Impedance change: Within± 20% Without distinct damage in	$ \xrightarrow{\text{ROOM THMP}} \xrightarrow{85\pm2^{\circ}C} \xrightarrow{30\text{MINS}} $				
	appearance	Total: 5 Cycles				
High Temperature Storage		 Temp: 85°C ±2°C Time: 1000 ±48 Hours Component should be tested after 1 hour at room temperature 				
Humidity		1. Temp: 40°C ±2°C 2. R.H. : 90% to 95% 3. Time: 48 ±2 Hours				
High Temperature Load Life	There should be no	 Temp: 85°C ±2°C Time: 96 ±12 Hours Load: Allowed DC Current 				
Low Temperature Load Life	open circuit	1. Temp: -40°C ±2°C 2. Time: 96 ±12 Hours 3. Load: Allowed DC Current				



Packaging

Packaging Quantity & Reel Specifications



Туре	ФА	ΦВ	ФС	w	т	Quantity (EA)
0805	70+0	60±0 5	12+0.2	0+0.2	11 / 1	2000
1206	IOIZ	00±0.5	13±0.5	910.5	11.411	2000

Embossed Plastic Tape Specifications



Туре	Α	В	w	E	F	P0	P1	P2	ΦD0	t
0805	1.4±0.1	2.55±0.05	0,0.2	1 7510 1	2 5 1 0 1	410.1	410.1	210.1	1 5 1 0 1	1.35±0.1
1206	1.9±0.1	3.5±0.05	0±0.2	1.75±0.1	3.5±0.1	4±0.1	4±0.1	2±0.1	1.5+0.1	2.1±0.1

Leader / Tape





Chip Common Mode Chokes multicomp PRO

Peel-off Force

The force for tearing off cover tape is 0.05 to 0.69 (N) in the arrow direction at the following conditions: Temperature: 5°C to 35°C Humidity: 45% to 85% Atmospheric pressure: 860hpa to 1060hpa



Part Number Table

Description	Part Number
Chip Common Mode Choke, 20%, 90Ω , 0805	MP002811
Chip Common Mode Choke, 20%, 120Ω , 0805	MP002812
Chip Common Mode Choke, 20%, 220 Ω , 0805	MP002813
Chip Common Mode Choke, 20%, 370Ω , 0805	MP002814
Chip Common Mode Choke, 20%, 90Ω, 1206	MP002815
Chip Common Mode Choke, 20%, $1k\Omega$, 1206	MP002816
Chip Common Mode Choke, 20%, 2.2kΩ, 1206	MP002817

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