

**RoHS
Compliant**



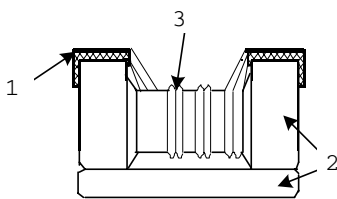
Features

- 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

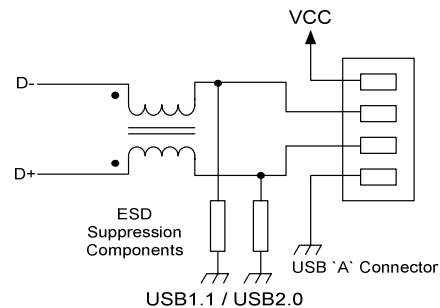
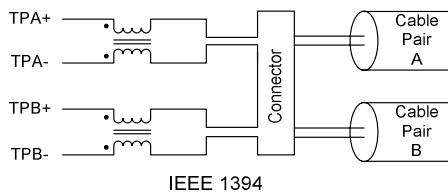
Applications

- 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)

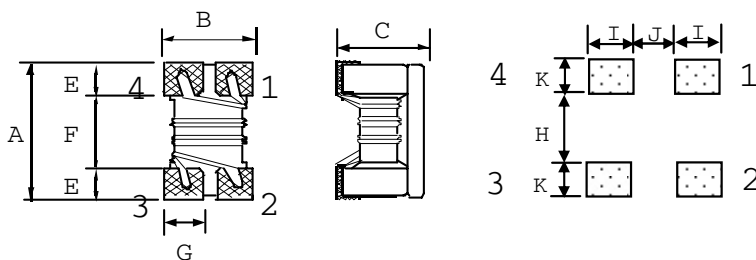
Construction



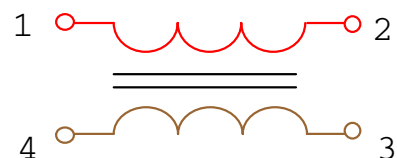
1	Terminal
2	Ferrite
3	Enamel-insulated Wire



Dimensions



Equivalent Circuit



Chip Common Mode Chokes

multicomp PRO

Unit : mm

Case Code	A	B	C	E	F	G	H	I	J	K	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		1.05	53.3

Standard Electrical Specifications

0805 / Standard Type

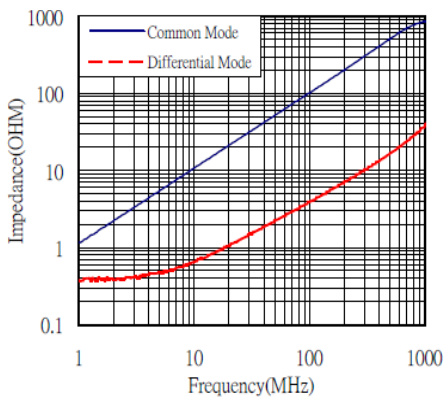
Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Insulation Resistance (MΩ) min.
90	±20%	100	0.35	330	50	125	10
120	±20%	100	0.3	370	50	125	10
220	±20%	100	0.35	330	50	125	10
370	±20%	100	0.4	280	50	125	10

1206 / Standard Type

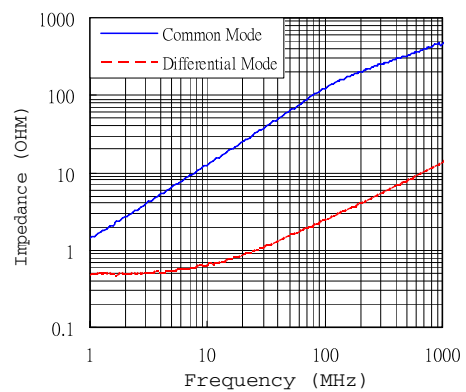
Impedance (Ω)	Tolerance	Test Condition (MHz)	DCR (Ω) max.	IDC (mA) max.	Rated Voltage Vdc (V)	Withstanding Voltage Vdc (V)	Resistance (MΩ) min.
90	±20%	100	0.30	370	50	125	10
1000	±20%	100	1.00	230	50	125	10
2200	±20%	100	1.20	200	50	125	10

Characteristics (Impedance vs. Frequency)-0805

MP002811



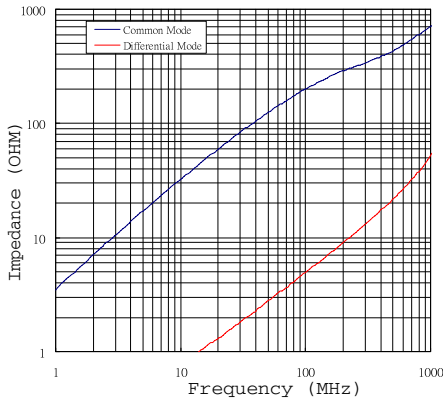
MP002812



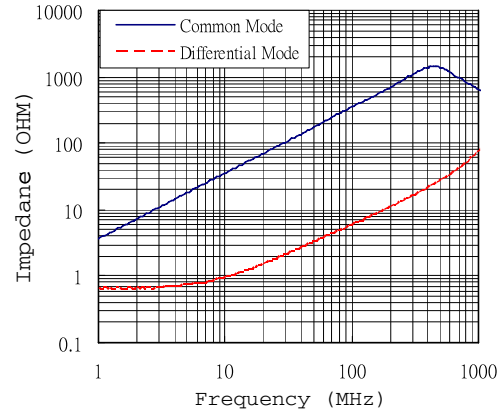
Newark.com/multicomp-pro
 Farnell.com/multicomp-pro
 Element14.com/multicomp-pro

multicomp PRO

MP002813

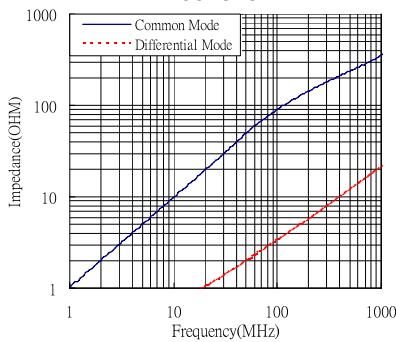


MP002814

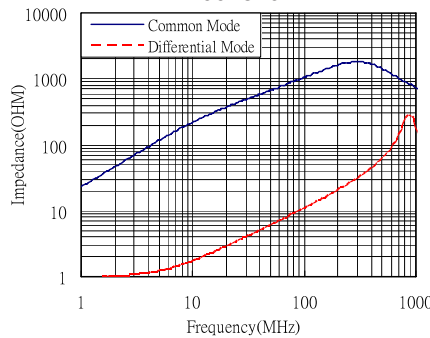


Characteristics (Impedance vs. Frequency)-1206

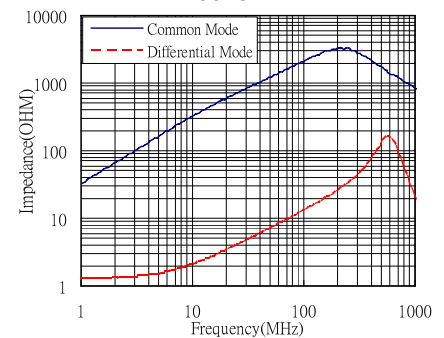
MP002815



MP002816



MP002817



Electrical Performance Test

Items	Requirement	Test Conditions / Test Methods
Impedance	Refer to standard electrical characteristic spec. Component should not be damaged	LCR Meter HP 4291B
DC Resistance DCR		Micro-Ohm meter (GOM-801G)
Withstand Voltage (VDC)		Test Voltage: 2.5 Times Rated Voltage Testing Time: 60 seconds Charge Current: 0.5mA
Rated Voltage (VDC)		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 ±5 for 3 seconds
Vibration Test (Low Frequency)	Component should not be damaged	1. Amplitude: 1.5 m/m 2. Frequency: 10-55-10Hz (1min.) 3. Direction: X, Y, Z 4. Duration: 2 Hrs/X, Y, Z

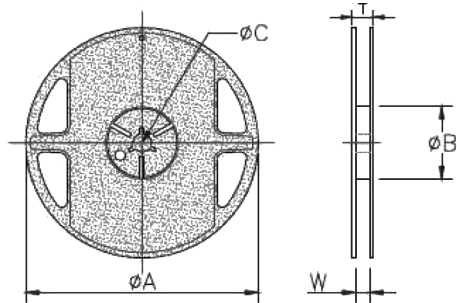
Storage Temperature: 15~28°C; Humidity < 80%RH

Climatic Test

Items	Requirement	Test Conditions / Test Methods
Low Temperature Storage	Impedance change: Within± 20% Without distinct damage in appearance	1. Temp: -40°C ±2°C 2. Time: 1000 ±48 Hours 3. Component should be tested after 1 hour at room temperature
Thermal Shock		<p>Total: 5 Cycles</p>
High Temperature Storage		1. Temp: 85°C ±2°C 2. Time: 1000 ±48 Hours 3. 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		1. Temp: 85°C ±2°C 2. Time: 96 ±12 Hours 3. Load: Allowed DC Current
Low Temperature Load Life		1. Temp: -40°C ±2°C 2. Time: 96 ±12 Hours 3. Load: Allowed DC Current

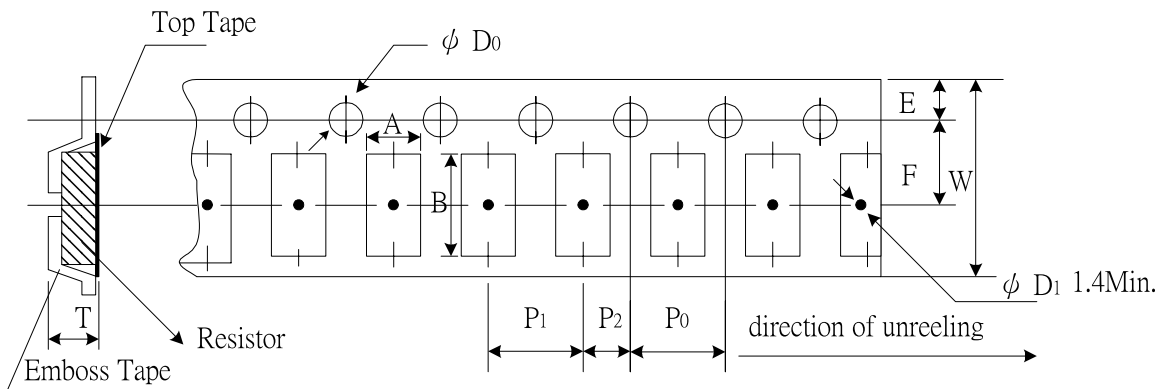
Packaging

Packaging Quantity & Reel Specifications



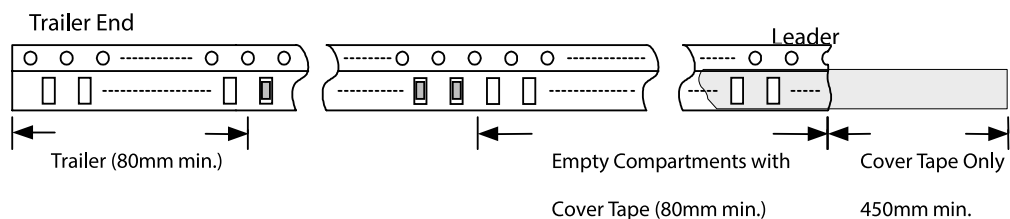
Type	ΦA	ΦB	ΦC	W	T	Quantity (EA)
0805	78±2	60±0.5	13±0.3	9±0.3	11.4±1	2000
1206						

Embossed Plastic Tape Specifications



Type	A	B	W	E	F	P0	P1	P2	ΦD0	t
0805	1.4±0.1	2.55±0.05	8±0.2	1.75±0.1	3.5±0.1	4±0.1	4±0.1	2±0.1	1.5±0.1	1.35±0.1
1206	1.9±0.1	3.5±0.05								2.1±0.1

Leader / Tape



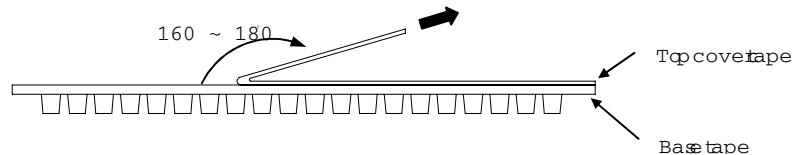
Peel-off Force

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%, 220Ω, 0805	MP002813
Chip Common Mode Choke, 20%, 370Ω, 0805	MP002814
Chip Common Mode Choke, 20%, 90Ω, 1206	MP002815
Chip Common Mode Choke, 20%, 1kΩ, 1206	MP002816
Chip Common Mode Choke, 20%, 2.2kΩ, 1206	MP002817

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