SMD Common Mode Choke - 4525F (USB 2.0)

Features & Application 2020/1/1

• For common mode noise suppression in high speed differential signal lines: USB2.0, IEEE1394, LVDS.

•Up to 1.0 GHz differential mode 3 dB cutoff frequency

Core material Ferrite

Environmental RoHS compliant, halogen free

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature 105°C (ambient + temp rise)

Storage temperature Component: –40°C to +105°C.

Tape and reel packaging: –40°C to +80

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycle

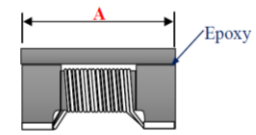
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C /85% relative humidity)

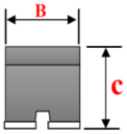
85% relative humidity)

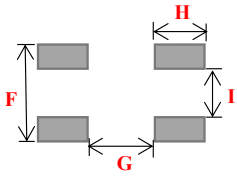
★ When ordering, please check part number

Part number	Impedance(Ω) @100MHz ± 25%	DC Resistance (Ω) max	Irms (mA)
CMC4525F701-2AT	700	0.150	2000
CMC4525F102-1AT	1000	0.400	1000

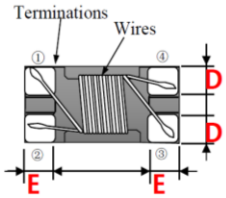
Isolation (Vrms) : 250V. Winding to winding isolation (hipot) tested for one minute.

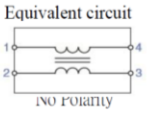






Recommended Land Pattern





Dimensions	
A	4.50±0.2
B	2.80±0.2
C	2.20±0.2
D	0.75 typ
E	0.75 typ
F	3.39 typ
G	2.40 typ
H	1.35 typ
I	0.70 typ
unit : mm	

Impedance/Inductance/Q/ LCR Angilent E4991A
Resistance DC Chroma 16502
Current per winding that causes a 20°C rise from 25°C ambient
Electrical specifications at 25°C

Weight 101 – 105 mg.

Packaging 500/7〃 reel; Plastic tape:12 mm wide.

Packaging will different,accroding the various chip size.

Contact Us	
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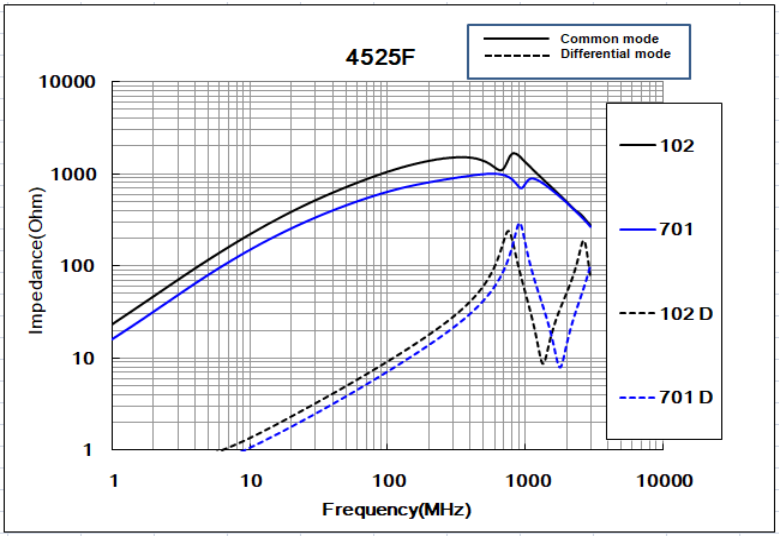
China	sales-cn@bing-ri.com.tw
Japan	sales-jp@bing-ri.com.tw

Official Website :
https://www.bing-ri.com.tw/

Typical Impedance vs Frequency

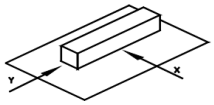
Common Mode & Differential mode



GENERAL CHARACTERISTICS

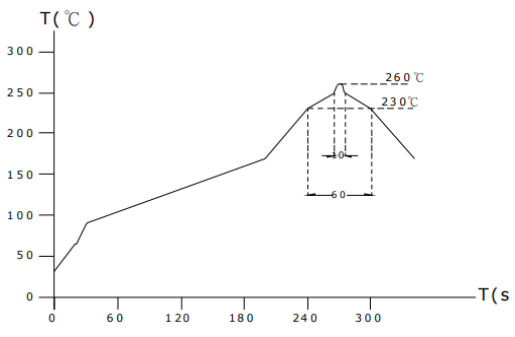
1. Operating temperature range: -40 TO + 125℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Ywithstanding at below conditions.

Terminal should not peel off. (refer to figure at right) 0.8kg Min –4525



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/ (℃ -25~+80). ℃ , inductance deviation within±5.0%, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±5%, after 96 hours in 90~95% relative humidity at 40 ±2 and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within ±5%, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within ±5%, after being dropped once with 981m/s2 (100G) shock attitude upon a rubber block method shock testing machine, in three different
10. Resistance to Soldering Heat: 260 , 10 seconds(See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range: 10 ~ 35 (Generally: 21 ~ 31) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range:-35 ~ 85 , Humidity Range: 50% ~ 95% RH
12. Use components within 12 months. If 12 months or more have elapsed, check soldarability before use.
13. Reflow profile recommend:

Lead-free heat en duran ce test



Lead-free the recommended reflow condition