

SMD Common Mode Choke - 2520F (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 1.0GHz 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)

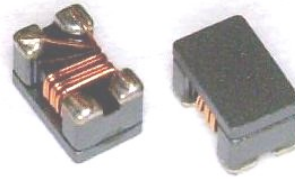
Storage temperature Component: -40°C to +105°C.

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)

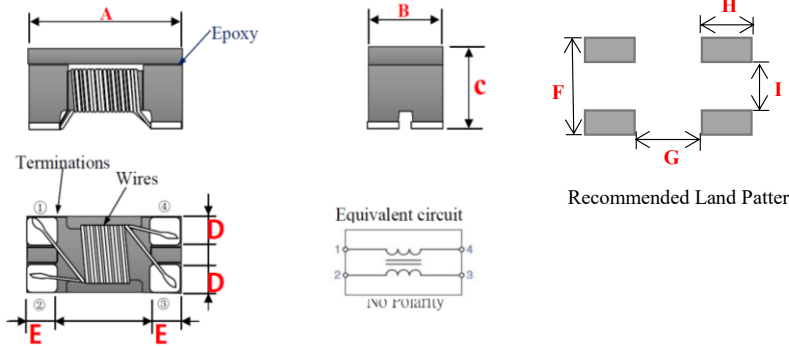
85% relative humidity)



★ When ordering, please check part number

Part number	Impedance(Ω) @100MHz ± 25%	DC Resistance (Ω) max	Irms (mA)
CMC2520F301-0.4AT	300	0.35	400
CMC2520F451-0.35AT	450	0.40	350
CMC2520F601-0.3AT	600	0.45	300
CMC2520F102-0.2AT	1000	0.90	200

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



Dimensions	
A	2.50±0.2
B	2.00±0.2
C	1.20±0.1
D	0.40 typ
E	0.45 typ
F	2.10 typ
G	1.50 typ
H	0.80 typ
I	1.30 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 23.3 – 25.5 mg.

Packaging 2000/7 " reel; Plastic tape: 8 mm wide.

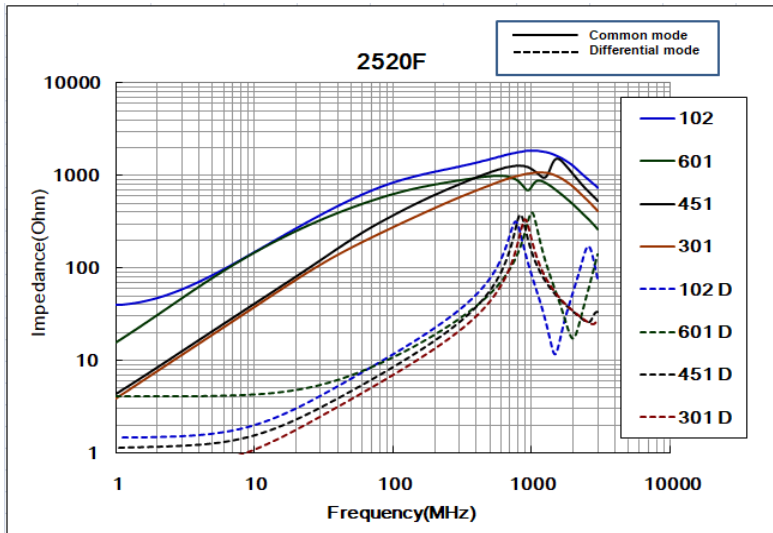
Packaging will different, according to the various chip size.

Contact Us	
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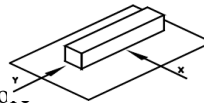
Typical Impedance vs Frequency

Common Mode & Differential mode



GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO $+125^{\circ}\text{C}$ (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.Y withstanding at below conditions.
Terminal should not peel off. (refer to figure at right) 0.5kg Min -2520
4. Insulating resistance: Over $100\text{M}\Omega$ 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 $(0\sim 2,000)\times 10^{-6}/(^{\circ}\text{C } -25\sim +80)$. $^{\circ}\text{C}$, inductance deviation within $\pm 5.0\%$, after 96 hours.
7. Humidity characteristics (Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in $90\sim 95\%$ relative humidity at 40 ± 2 and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration ($10\sim 55\sim 10$ Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s^2 (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: $10 \sim 35$ (Generally: $21 \sim 31$), Humidity Range: $50\% \sim 80\% \text{RH}$ (Generally: $65\% \sim 75\%$); Transportation condition: Temperature Range: $-35 \sim 85$, Humidity Range: $50\% \sim 95\% \text{RH}$
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test

Lead-free the recommended reflow condition

