

# SMD Common Mode Choke - 9070 (Power Line)

## Features & Application

2020/1/1

- Chip common mode filter for large current applications

For each series, there is excellent common mode impedance and noise suppression in a compact case.

- Compatible with high-density portable devices, which are always being made smaller and lighter, because the height has been reduced.
- Power line noise countermeasure for various electronic equipmen

Noise countermeasure for adapter lines and battery lines or PCs and word processors.

larger electronic equipment such as note book

- Environmental RoHS compliant, halogen free
- Terminations RoHS compliant matte tin over nickel over silver palladium-glass frit.
- Ambient temperature  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with  $I_{rms}$  current.
- Maximum Part Temperature  $+105^{\circ}\text{C}$

- Storage temperature Component:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ . • Tape and reel packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

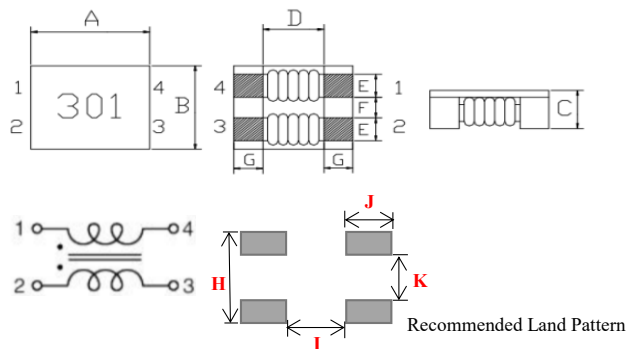
- Resistance to soldering heat Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between Moisture Sensitivity Level (MSL) 1 (unlimited floor life at  $<30^{\circ}\text{C}$  /85% relative humidity)



★ When ordering, please check part number

Part number	Impedance( $\Omega$ ) @100MHz		DC Resistance ( $m\Omega$ ) max	Rated Current (A) max.	MARK
	min.	typ.			
ACM9070F301-6AT	225	300	6	6	301
ACM9070F501-5.5AT	450	600	8	5.5	501
ACM9070F701-5AT	500	700	10	5	701
ACM9070F102-4AT	750	1000	13	4	102
ACM9070F152-3AT	1200	1500	30	3	152
ACM9070F222-2.5AT	1700	2200	50	2.5	222
ACM9070F272-2AT	2000	2700	80	2	272

Isolation ( $V_{rms}$ ) : 250V. Winding to winding isolation (hipot) tested for one minute.



Dimensions (unit : mm)	
A	7.00±0.5
B	6.00±0.5
C	4.8 max
D	5.70 typ
E	1.50±0.2
F	2.00±0.2
G	1.70±0.2
H	5.00 typ
I	6.0 typ
J	2.50 typ
K	4.00 typ

Impedance/Inductance/Q/	LCR Angilent E4991A/4263B
Resistance DC	Chroma 16502
Current per winding that causes a 20°C rise from 25°C ambient	
Electrical specifications at 25°C	

Weight 860 – 882 mg.

Packaging 700/13 " reel; Plastic tape: 24 mm wide.

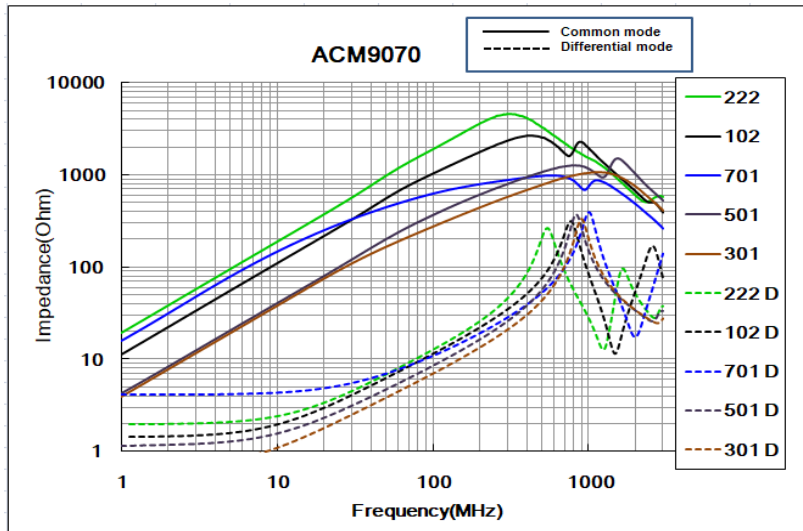
Packaging will different, according the various chip size. □

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Official Website :
<a href="https://www.bing-ri.com.tw/">https://www.bing-ri.com.tw/</a>

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) 0.98kg Min -9070
4. Insulating resistance: Over  $100\text{M}\Omega$  at  $100\text{V D.C.}$  between coil and coil
5. Dielectric strength: No dielectric breakdown at  $100\text{V D.C.}$  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  $40 \pm 2$  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  $1.5\text{mm P-P}$  amplitudes.
9. Shock resistance: Inductance deviation within  $\pm 5\%$ , after being dropped once with  $981\text{m/s}^2$  ( $100\text{G}$ ) 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:  $50\% \sim 80\%$  RH (Generally:  $65\% \sim 75\%$ ); Transportation condition: Temperature Range:  $-35 \sim 85$ , Humidity Range:  $50\% \sim 95\%$  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 en duran ce test

Lead-free the recommended reflow condition

