### SMD Common Mode Filters

### **ACM1211F Series**

### **FEATURES**

- Winding type realizes small size and low profile
- Prevention of common mode noise at high frequency
- Excellent solderability
- Operating temperature -40~+125 ℃ (Including self temperature rise)
- RoHS Compliant

### **FEATURES**

- Power line noise countermeasure for electronic equipment (Notebook, server applications, Battery, etc.)
- Best for high current circuit such as car
- Wireless charging and power device design

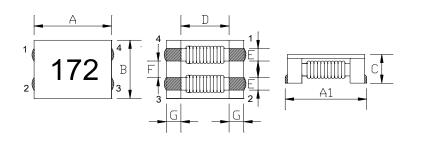
# **Explanation of Part Number**

ACM 1211 F-701 T 80

1 2 3 4 5 6

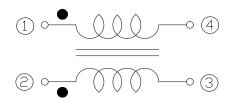
- 1:Product Series:Wire Wound Chip Common Mode Filters
- ♦ 2:Dimensions:
- 3: Material Code:Ferrite
- 4:Common Mode Impedance(Ω)
- ◆ 5:Packing(Tape & Reel)
- ♦ 6:Rated Current: 80=8000mA

## Shapes and Dimensions [Dimensions in mm]

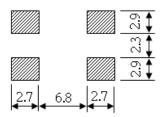


A: 12.0±0.5	mm
A1: 12.5±0.5	mm
B: 10.8±0.5	mm
C: 8.5 Max.	mm
D: 7.0 Typ.	mm
E: 2.7±0.2	mm
F: 2.5±0.2	mm
G: 2.5±0.2	mm

# Equivalent circuit



# Land Pattern: [mm]





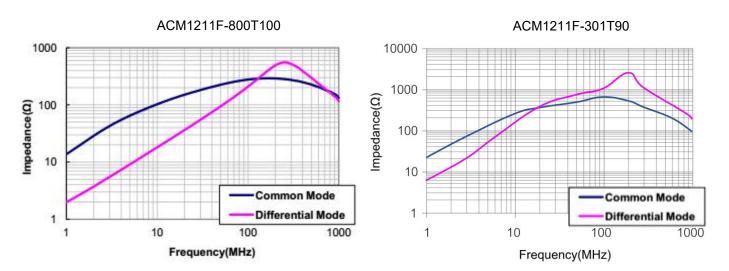
# **Electrical Characterisitics:**

Part Number	Impedance (Ω) @100MHz		DC Resistance	Rated Current	Rated Voltage	Insulation Resistance	Marking
	MIN	TYP	(mΩ) Max	(A) Max	(V) Max	(MΩ) Min	
ACM1211F-800T100	80	230	2.0	10.0	125	10	800
ACM1211F-301T90	200	300	4.0	9.0	125	10	301
ACM1211F-501T80	300	500	5.5	8.0	125	10	501
ACM1211F-701T80	500	700	6.0	8.0	125	10	701
ACM1211F-801T80	600	800	8.0	8.0	125	10	801
ACM1211F-102T60	750	1000	14	6.0	125	10	102
ACM1211F-222T18	2200	2500	35	1.8	125	10	222
ACM1211F-272T15	2300	2700	50	1.5	125	10	272

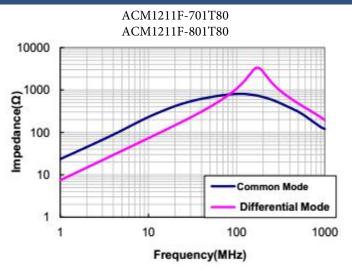
Rated Current : Based on temperature rise ( $\triangle T$ : 40°C TYP.)

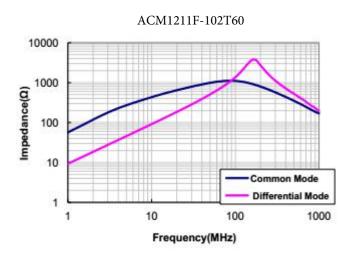
## TYPICAL ELECTRICAL CHARACTERISTICS

## Impedance VS. Frequency

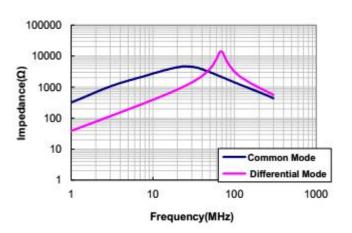




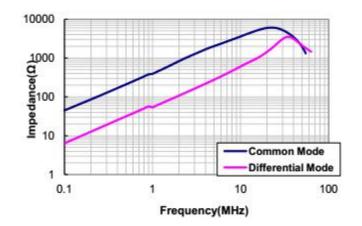




ACM1211F-222T18





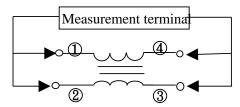




# **TEST EQUIPMENT**

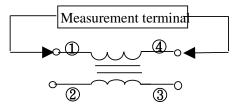
### Impedance

Measured by using HP4291B RF Impedance Analyzer.



### **DC Resistance**

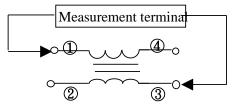
Measured by using Chroma 16502 milliohm meter.



#### **Insulation Resistance**

Measured by using Chroma 19073

Measurement voltage: 50v, Measurement time: 60 sec.





# **Reliability Test**

## **MECHANICAL**

TEST ITEM	SPECIFICATION	TEST DETAILS	
Solder ability	The product shall be connected to the test	Apply cream solder to the printed circuit board .	
	circuit board by the fillet (the height is 0.2mm).	Refer to clause 8 for Reflow profile.	
Resistance to	There shall be no damage or problems.	Temperature profile of reflow soldering	
Soldering heat		© 300 — soldering (Peak temperature 260±3°ℂ 10 sec)	
(reflow soldering)		Soldering (Peak temperature 260±3°C 10 sec)  Pre-heating  150  Slow cooling (Stored at room temperature)	
		200 — 30 sec Min (230°° °C)	
		g 150 Pre-heating Slow cooling	
		150 ~ 180°C (Stored at room temperature)	
		50 -	
		2 min   10   2 min, or more	
		The specimen shall be passed through the reflow oven	
		with the condition shown in the above profile for 1 time.  The specimen shall be stored at standard atmospheric	
		eric conditions for 1 hour, after which the measurement	
		shall be made.	
		Shan be made.	
Terminal strength	The terminal electrode and the ferrite must	Solder a chip to test substrate , and then laterally apply	
	not damaged.	a load 9.8N in the arrow direction.	
		Printed circuit board of 1.0	
Strength on PC board	The terminal electrode and the ferrite must	Solder a chip to test substrate and then apply a load.	
bending	not damaged.	10 20	
		Test board:FR4 100×40×1mm	
		R10 Fall speed:1mm/sec.	
		***	
		Dimensions in mm	
High	Impedance:Within±20% of the initial value.	After the samples shall be soldered onto the test circuit	
temperature	Insulation resistance and DC resistance on the	board,the test shall be done.	
resistance	specification(refer to clause 2-1) shall be met.	Measurement : After placing for 24 hours min.	
	The terminal electrode and the ferrite must not	Temperature : +125±2℃	
	damaged.	Applied voltage : Rated voltage	
		Applied current : Rated current	
		Testing time : 500±12 hours	

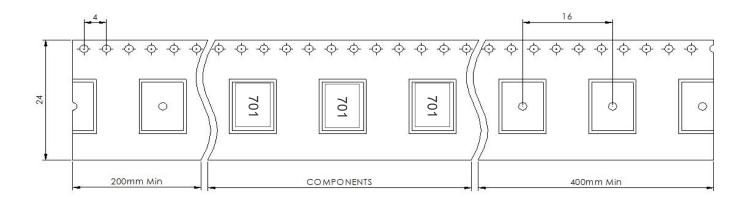


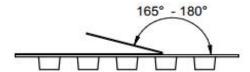
## **MECHANICAL**

TEST ITEM	SPECIFICATION	TEST DETAILS
Humidity	Impedance:Within±20% of the initial value.	After the samples shall be soldered onto the test circuit
resistance	Insulation resistance and DC resistance on the	board,the test shall be done.
	specification(refer to clause 2-1) shall be met.	Measurement : After placing for 24 hours min.
	The terminal electrode and the ferrite must not	Temperature : +60±2℃ , Humidity : 90 to 95 %RH
	damaged.	Applied voltage : Rated voltage
		Applied current : Rated current
		Testing time : 500±12 hours
Thermal shock	Impedance:Within±20% of the initial value.	1 cycle
	Insulation resistance and DC resistance on the	
	specification(refer to clause 2-1) shall be met.	+125°C 30 sec
	The terminal electrode and the ferrite must	
	not damaged.	-40°C +\ \ \ 30 min.
Low	Impedance:Within±20% of the initial value.	After the samples shall be soldered onto the test
temperature	Insulation resistance and DC resistance on the	circuit board,the test shall be done.
storage	specification(refer to clause 2-1) shall be met.	Measurement : After placing for 24 hours min.
	The terminal electrode and the ferrite must	Temperature : -40±2℃
	not damaged.	Testing time : 500±12 hours
Vibration	Impedance:Within±20% of the initial value.	After the samples shall be soldered onto the test circuit
	Insulation resistance and DC resistance on	board,the test shall be done.
	the specification(refer to clause 2-1)	Frequency : 10 to 55 Hz
	shall be met.	Amplitude : 1.52 mm
	The terminal electrode and the ferrite must	Dimension and times : X ,Y and Z directions
	not damaged.	for 2 hours each.
Solderability	New solder More than 75%	Flux (rosin, isopropyl alcohol{JIS-K-1522}) shall be coated
		over the whole of the sample before hard, the sample shall
		then be preheated for about 2 minutes in a temperature
		of 130∼150℃ and after it has been immersed to a depth
		0.5mm below for 3±0.2 seconds fully in molten solder
		M705 with a temperature of 245±2°C. More than 75% of the
		electrode sections shall be couered
		with new solder smoothly when the sample is taken out
		of the solder bath.



# **Packaging**





Tape width	Distance	Pull-of force
24 mm	16 mm	10~120g

# **Packing Quantity**

500 pcs./reel

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Common Mode Chokes / Filters category:

Click to view products by MetalLions manufacturer:

Other Similar products are found below:

PE-64683 RD5122-6-9M6 RD6137-6-7M5 RD8147-16-3M0 ST6118T-R FE3X025-10-7NL RD7147-25-0M7 TCM0806G-350-2P-T TCM0806G-650-2P-T IND-0110 UAL21VR0802000 UALSC023000000 UALSC1020JH000 UALSU10VD20010 UALSU9VD070100 36-00037 UALW21HS072450 UALSU9H0208000 UAL24VK06450CH PLT10HH501100PNB PLT10HH401100PNB PLT10HH1026R0PNB 36-00029-01 PE-67531 TLH10UB 113 0R5 2752045447 7351V CMF16-153131 RD7147-6-6M0 T8116NLT FE2X10-4-2NL 36-00029-07 T8003NLT CTX01-13663 CTX66-19521-R RC212-0.5-10M RC112-0.4-15M RC212-0.6-6M8 RC212-0.4-15M RC112-0.3-30M WTCF2012Z0M751PB PH9408.814NLT PAC6006.364NLT PAC6006.444NLT PAC6006.204NLT PH9407.204NLT PAC6006.264NLT PH9408.105NLT PH9408.494NLT PAC6006.104NLT