

Wire Wound Chip Common Mode Choke Coil –ACML-F Series 片式共模绕线电感

Operating Temp. : -55°C~+150°C

● FEATURES 特性

1. Winding type realizes small size and low profile
2. Prevention of common mode noise at high frequency
3. Excellent solderability, Manufactured with fully-automated processes for high reliability and consistent quality
4. AEC-Q200 verified



● APPLICATIONS 用途

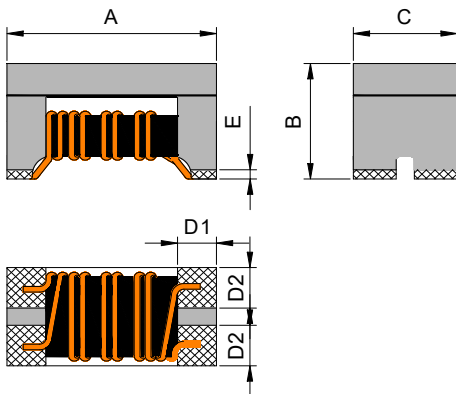
1. Common mode noise filtering for Automotive CAN-FD system.

● PART NUMBERING SYSTEM 品名系统

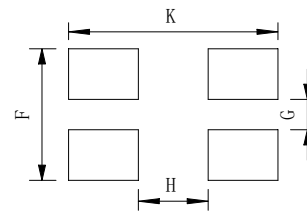
ACML 4532 F - 101 - 2P - T
 A B C D E F

A: Automobile Type B: External Dimensions 外形尺寸 A*C
 C: For CAN-FD system D: Inductance Value (101 = 100uH)
 E: Number of line 2P : 2-Line F: Packaging : T=Taping and reel

● SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)



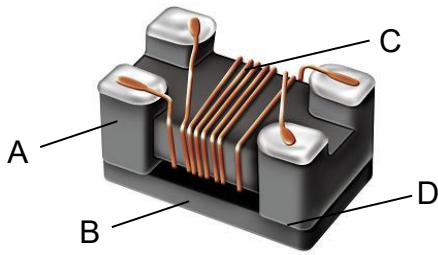
Recommended Land Pattern



TYPE(型号)	A	B	C	D1	D2	E	F	G	H	K
ACML3225F	3.2±0.2	2.5Max	2.5±0.2	0.8 Ref	0.8Ref	0.25Max	3.5Ref	0.6Ref	1.6 Ref	4.1Ref
ACML4532F	4.5±0.2	2.6±0.2	3.2±0.2	1.0 Ref	1.0Ref	0.5 Max	3.4Ref	1.6 Ref	2.9 Ref	5.5 Ref



● **STRUCTURE AND MATERIAL**



Part	Components	Material
A	Core	Ferrite
B	I Core	Ferrite
C	Wire	Polyurethane enameled copper wire
D	Epoxy	Epoxy resin

● **ELECTRICAL CHARACTERISTICS**

1. Operating temperature range : -55°C~150°C(Including self - temperature rise)
2. Storage temperature range (packaging conditions): -10°C~+40°C and RH 70% (Max.)

● **TEST AND MEASUREMENT PROCEDURES**

1. Inductance(uH)

Test equipment: Keysight E4991B / Agilent 4787A or equivalent

2. DC Resistance (DCR)

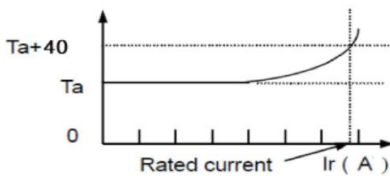
Test equipment: Agilent34420A / Agilent 4338B or equivalent

3. Rated Current (Irms)

Irms is direct electric current as chip surface temperature rose just 20 or 40 against chip initial surface temperature (Ta)

Temperature rise: Rated Current < 1A ΔT 20°C Max

Rated Current ≥ 1A ΔT 40°C Max



4. Insulation Resistance

Test equipment: Chroma or equivalent TH2683A / ZX6583

● **RECOMMENDED SOLDERING TECHNOLOGIES**

Re-flowing Profile

Preheat condition: 150~200 /60~120sec.

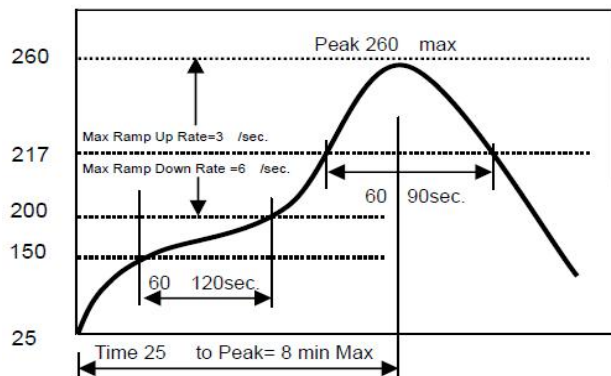
Allowed time above 217C: 60~90sec.

Max temp: 260

Max time at max temp: 10sec

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2 times max



● SPECIFICATION TABLE:

ACML3225F Series

Part No.	Inductance(uH)	Test Frequency (KHz)/0.1V	DCR (Ω) Max	Max. Rated Current (mA)	Rated Voltage (Vdc)	Insulation Resistance (MΩ) Min.
ACML3225F-101-2P-T	100+50%/-30%	100	2.50	150	80	10

ACML4532F Series

Part No.	Inductance(uH)	Test Frequency (KHz)/0.1V	DCR (Ω) Max	Max. Rated Current (mA)	Rated Voltage (Vdc)	Insulation Resistance (MΩ) Min.
ACML4532F-101-2P-T	100+50%/-30%	100	2.0	200	50	10

1. Operating temperature range : -55℃~150℃(Including self - temperature rise)
2. Storage temperature range (packaging conditions): -10℃~+40℃ and RH 70% (Max.)
3. Rated Current (Irms)

Irms is direct electric current as chip surface temperature rose just 20℃ or 40℃ against chip initial surface temperature (Ta)

Temperature rise: Rated Current < 1A ΔT 20℃ Max

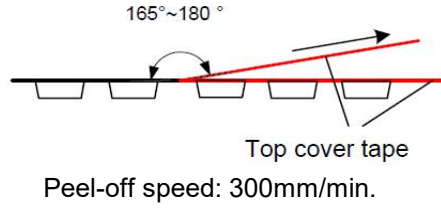
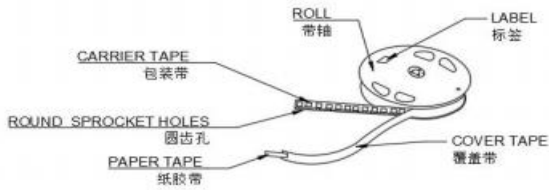
Rated Current ≥ 1A ΔT 40℃ Max



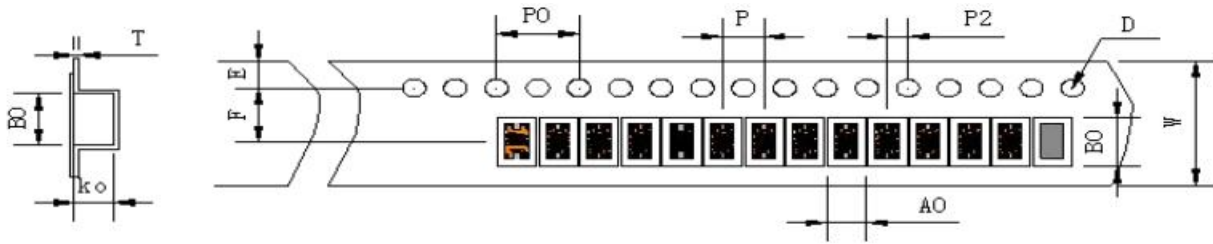
● **PACKAGING SPECIFICATION :**

1. Packaging - Cover Tape

The force for tearing off cover tape is 20 to 100 grams in the arrow direction.



2. Packaging - Tape & Reel



Item	Dimension
A	178±1
B	60±1
C	13±0.5

Type	Tape Dimension (mm)						Reel Dimension (mm)			Quantity (Pcs/Reel)
	W	A0	B0	K0	D	P	A	B	C	
ACML3225F	12	2.9	3.5	2.7	1.5	4	178	60	13	1000 pcs
ACML4532F	12	3.7	4.95	2.95	1.5	8	178	60	13	500pcs

