Automotive Signal Common Mode Chokes



ACMS-Q4528

Request Samples Check Inventory

4.5 x 3.2 x 2.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- AEC-Q200 compliant
- PPAP ready and supported
- Manufactured in TS/IATF 16949 production lines
- Excellent impedance characteristics
- Inductance values from 11 µH to 100 µH

Applications

- Differential signal line common mode noise suppression.
- Multimedia devices
- Automotive applications such as ADAS, Infotainment, Sensing, TCU

Electrical Specifications

Part Number	Impedance (Ω) @10MHz		Inductance (µH) (+50/-30%)	DCR (mΩ)	Rated Current (A)	Rated Voltage (Vdc)	Insulation Resistance (MΩ)
	Min	**Typ.**		**Max**	**Max**	**Max**	**Min**
ACMS-Q4528-110	300	600	11	600	0.36	50	10
ACMS-Q4528-220	500	1200	22	1000	0.31	50	10
ACMS-Q4528-510	1000	2800	51	1000	0.23	50	10
ACMS-Q4528-101	2000	5800	100	2000	0.20	50	10

Rated Current is based on an Irms temperature rise of 40°C.
Inductance Test Conditions: 0.1V, 100KHz
ACMS-Q4528 is AEC-Q200 Automotive certified.
ACMS-Q4528 Series is RoHS Compliant and Pb free.
Operating Temperature: -55°C to +150°C (Including self-heating)
Storage Temperature (on PCB): -55°C to +150°C.
Storage (in original packaging): <40°C, <60% RH.

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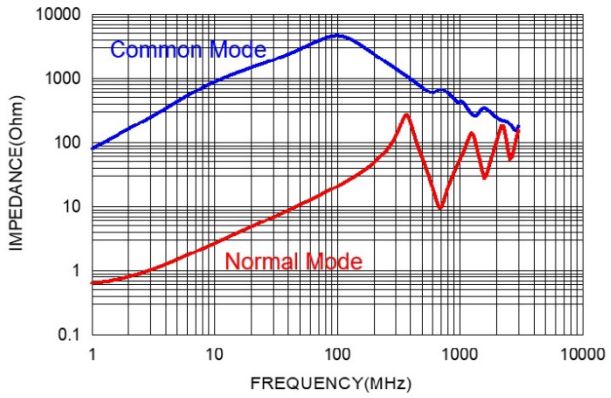
ACMS-Q4528

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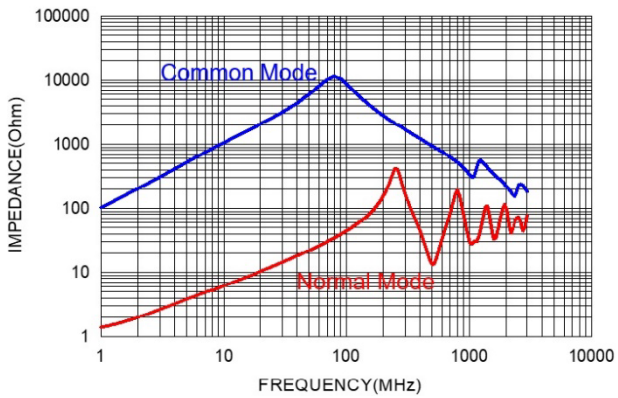
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Electrical Specifications

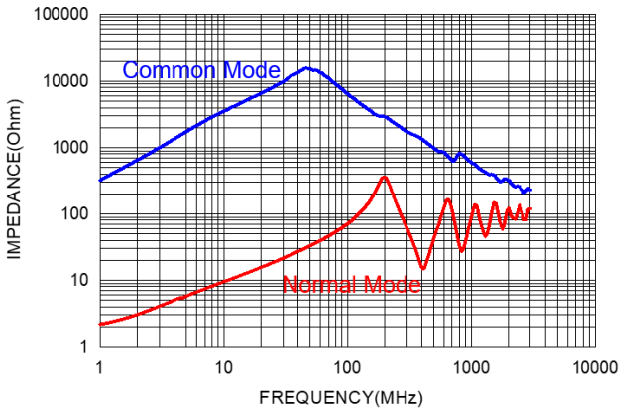
ACMS-Q4528-110



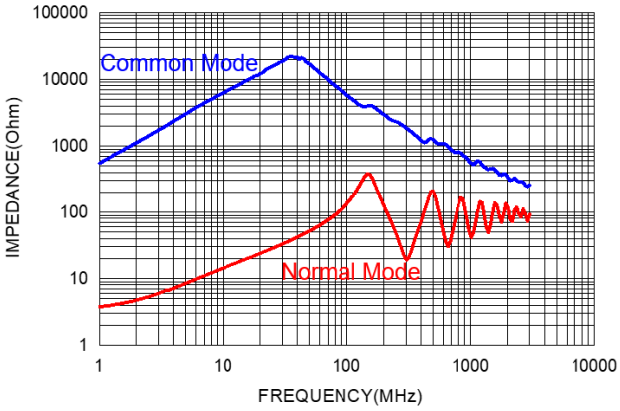
ACMS-Q4528-220



ACMS-Q4528-510



ACMS-Q4528-101



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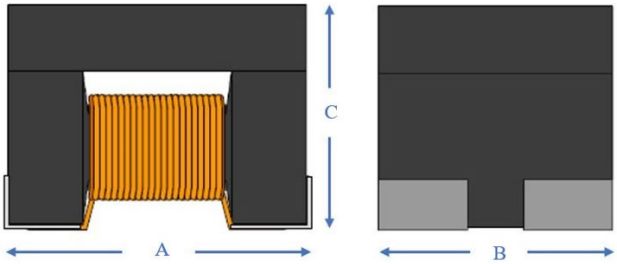


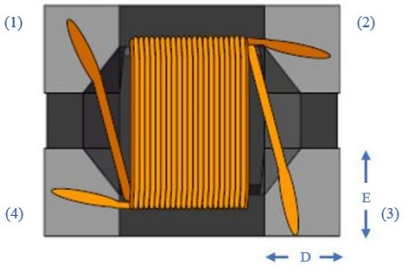
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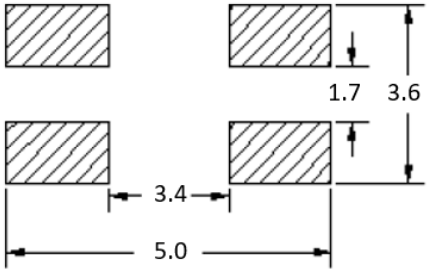
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Mechanical Specifications





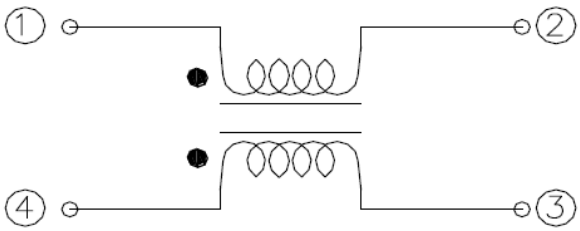


Recommended Layout

A	B	C	D	E
4.5 ±0.2	3.2 ±0.2	2.8 ±0.2	0.75 ±0.2	0.85 ±0.2

Dimensions: mm

Schematic



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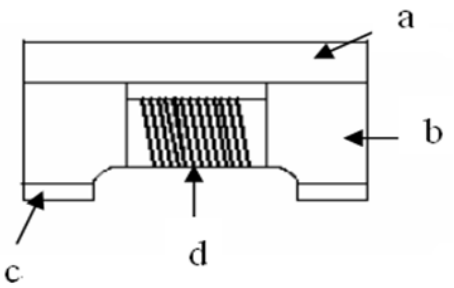


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Materials



	Description	Specification
a	Upper Plate	Ferrite
b	Core	Ferrite Core
c	Electrode	Ag/Ni/Sn
d	Wire	Enameled Copper Wire

Part Identification

ACMS - ☐ ☐ - ☐ - ☐

ACE-Q200	Package L x H (mm)	Inductance (µH)	Packaging
Q: Automotive Grade	4528: 4.5mm x 2.8mm	i.e. 110: 11µH	T: Tape & Reel 500 pcs

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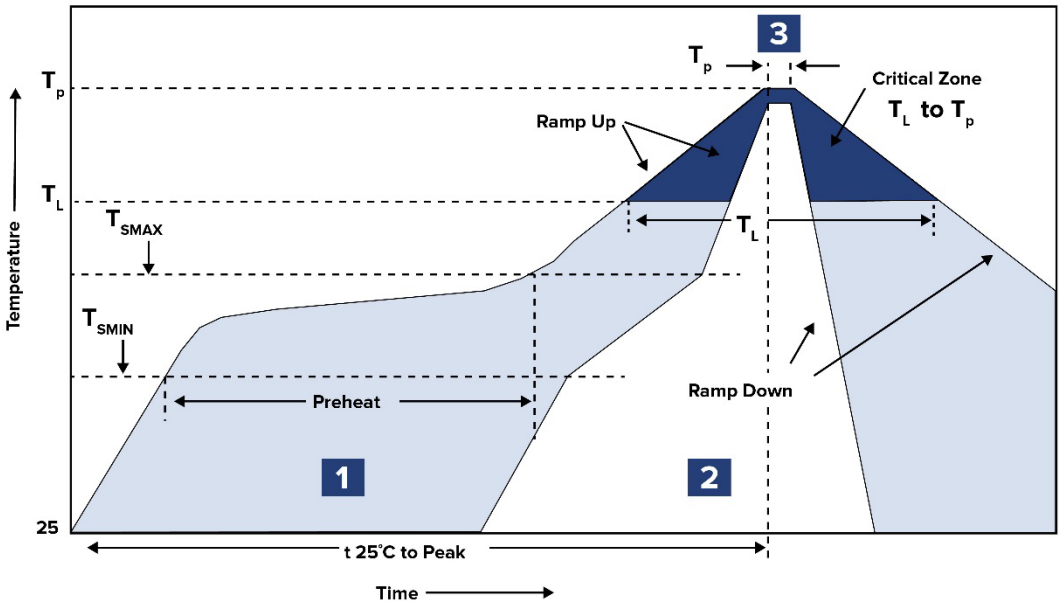


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 250°C ±5°C	30 sec. MAX

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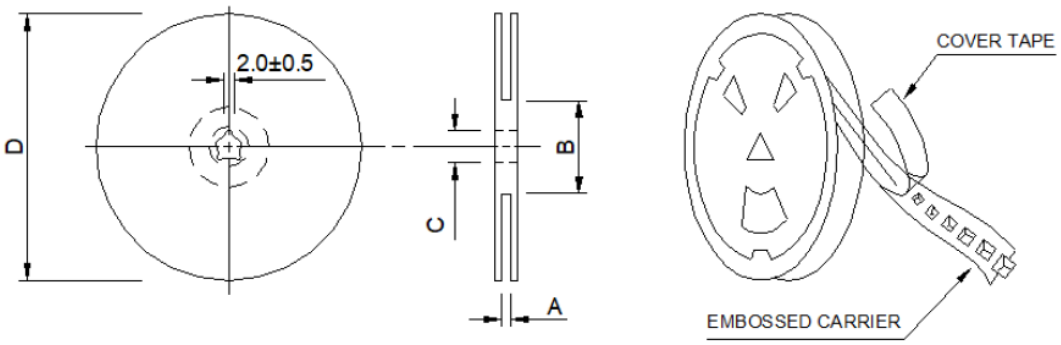
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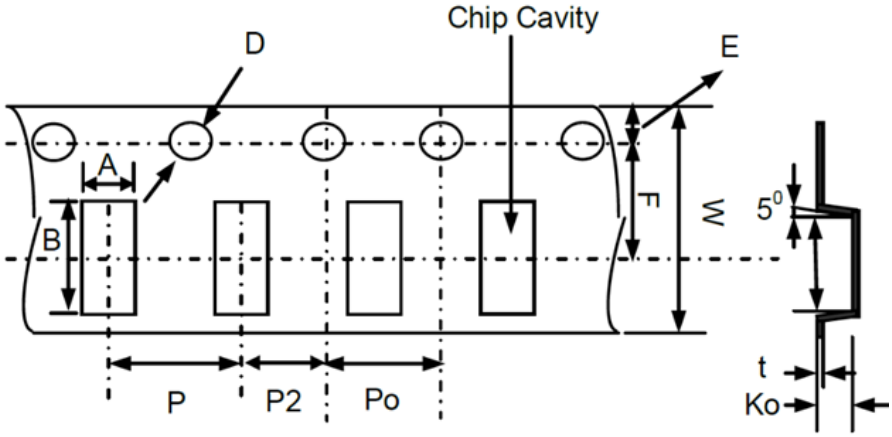
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RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 500pcs/reel



Series	A	B	C	D
ACMS-Q4528	13.5 ±0.5	60.0 ±2.0	13.5 ±0.5	178 ±2.0



W	P	E	F	P0	P2	Bo	Ao	Ko	D	D1	t
12.0 ±0.10	8.0 ±0.10	1.75 ±0.10	5.5 ±0.10	4.0 ±0.10	2.0 ±0.10	4.9 ±0.10	3.6 ±0.10	3.0 ±0.10	1.5 +0.10/-0	1.5 ±0.10	0.26 ±0.05

Dimensions: mm

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