

# Automotive Signal Common Mode Chokes



ACMS-Q6527E

Request Samples



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6.5 x 4.5 x 2.7 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- AEC-Q200 compliant, Grade 1
- PPAP ready and supported
- Manufactured in TS/IATF 16949 production lines
- Excellent impedance characteristics

## Applications

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

## Electrical Specifications

Part Number	Inductance (μH)	Rated Current (A)	DCR (Ω)	Insertion loss (dB) Max		Return Loss (dB) Min		
	Typ.	Max	Max	100 MHz	1-60 MHz	1-10 MHz	30 MHz	60 MHz
ACMS-Q6527E-101	100	0.35	2.0	-3.0	-1.0	-28	-23	-18
	Common Mode Rejection (dB) Min				Differential to Common Mode Rejection (dB) Min			
	1 MHz	10 MHz	60-100 MHz	200-1000 MHz	1-10 MHz	100 MHz	1000 MHz	
	-18	-35	-43	-30	-70	-50	-25	

**Rated Current is based on an Irms temperature rise of 40°C**

**Inductance Test Condition: 0.1V/100KHz**

**ACMS-Q6527E is AEC-Q200 Automotive certified**

**ACMS-Q6527E Series is RoHS Compliant and Pb free**

**Operating Temperature: -40°C to +125°C (Including self-heating)**

**Storage Temperature (on PCB): -40°C to +125°C**

**Storage (in original packaging): <40°C, <60% RH**



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**REVISION Initial Release**  
**3/30/2022**

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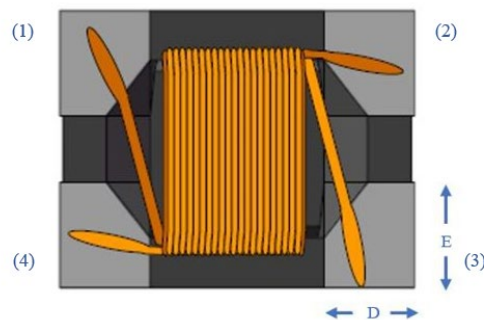
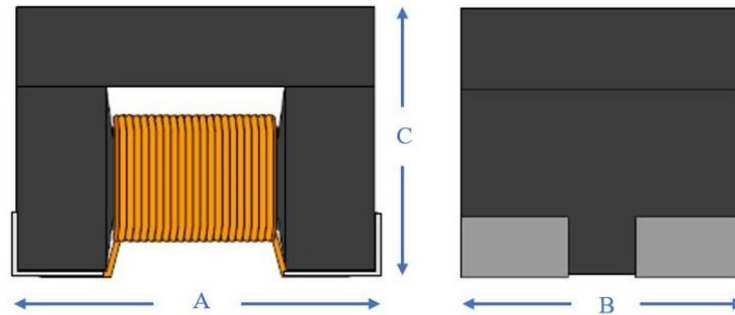


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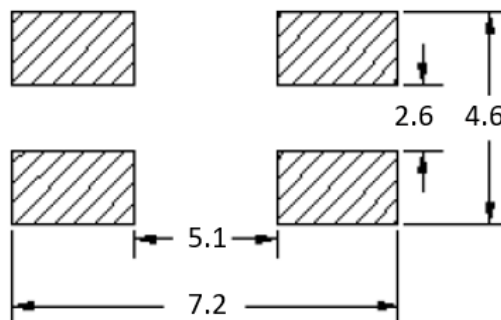


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## Mechanical Specifications



A	B	C	D	E
6.5 ±0.3	4.5 ±0.2	2.7 ±0.2	0.88 ±0.2	0.9 ±0.2



## Recommended Layout

Dimensions: mm



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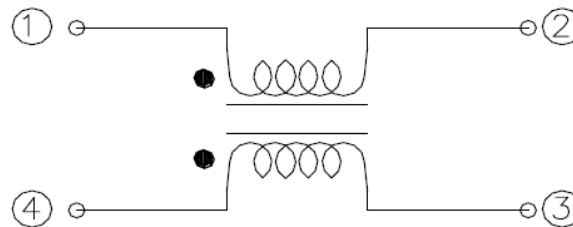


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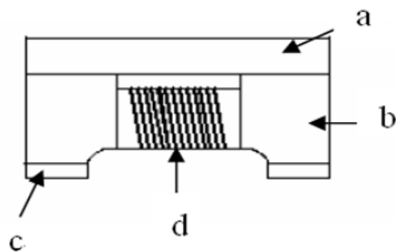


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## Schematic

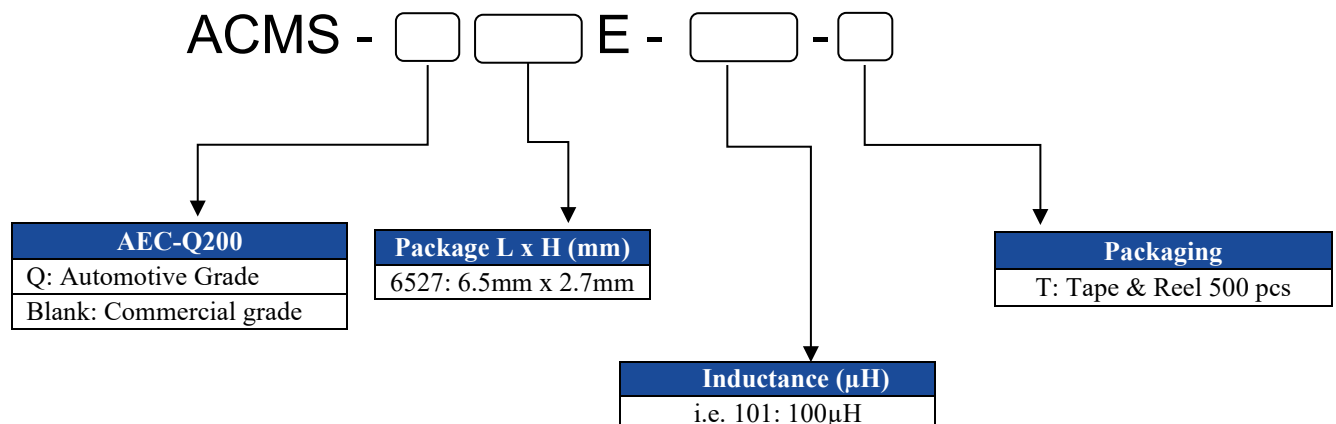


## Materials



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

## Part Identification





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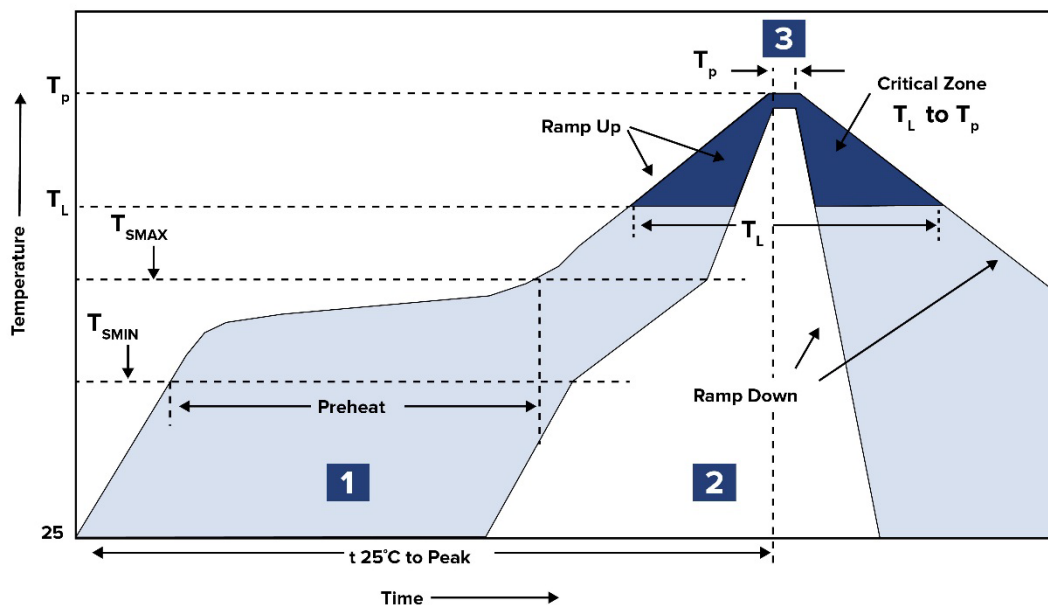


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ $150^{\circ}C \sim 200^{\circ}C$	60 ~ 180 sec.
2	Reflow	$T_L$ $217^{\circ}C$	60 ~ 150 sec.
3	Peak heat	$T_P$ $250^{\circ}C \pm 5^{\circ}C$	10 sec. MAX



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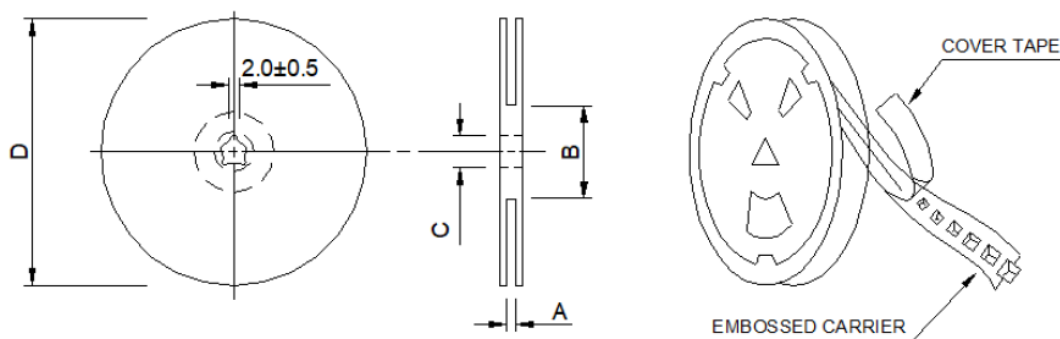
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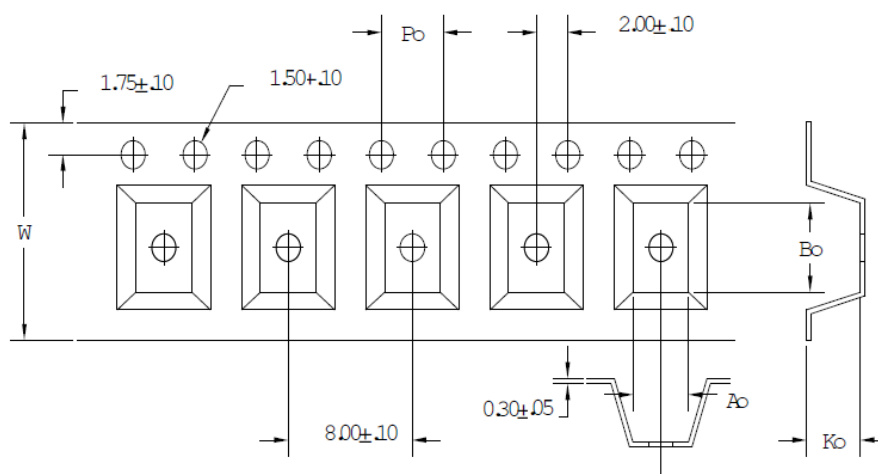
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## Packaging

**Tape & Reel: 500pcs/reel**



Series	A	B	C	D
ACMS-Q6527E	$16.7 \pm 0.5$	$60.0 \pm 2.0$	$13.5 \pm 0.5$	$178 \pm 2.0$



W	P0	Bo	Ao	Ko
$16.0 \pm 0.30$	$4.0 \pm 0.10$	$6.9 \pm 0.10$	$4.9 \pm 0.10$	$2.9 \pm 0.10$

Dimensions: mm

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