



Automotive signal Common Mode Chokes

ACMS-Q3225

Request Samples



Check Inventory



3.2 x 2.5 x 2.5 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 μ H to 100 μ H

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 (μ H) (+50/-30%) | DCR (m Ω) | Rated Current (A) | Rated Voltage (Vdc) | Insulation Resistance (M Ω) |
|----------------|----------------------------------|------|-------------------------------------|-------------------|-------------------|---------------------|-------------------------------------|
| | Min | Typ. | | Max | Max | Max | Min |
| ACMS-Q3225-110 | 300 | 550 | 11 | 400 | 0.3 | 80 | 10 |
| ACMS-Q3225-220 | 500 | 1100 | 22 | 500 | 0.25 | 80 | 10 |
| ACMS-Q3225-510 | 1000 | 2600 | 51 | 700 | 0.2 | 80 | 10 |
| ACMS-Q3225-101 | 2200 | 5100 | 100 | 1500 | 0.15 | 80 | 10 |

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

Inductance Test Conditions: 0.1V/100KHz

ACMS-Q3225 is AEC-Q200 Automotive certified

ACMS-Q3225 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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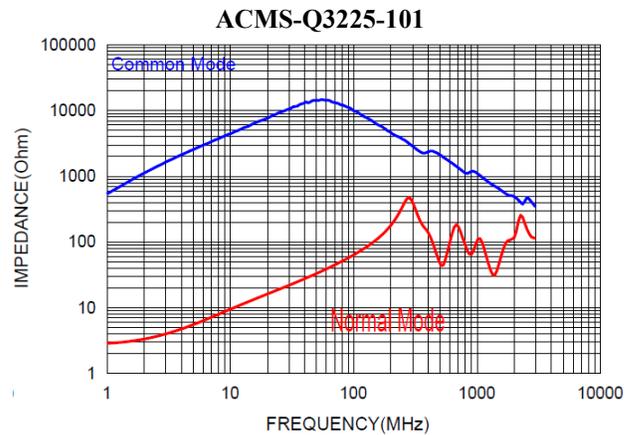
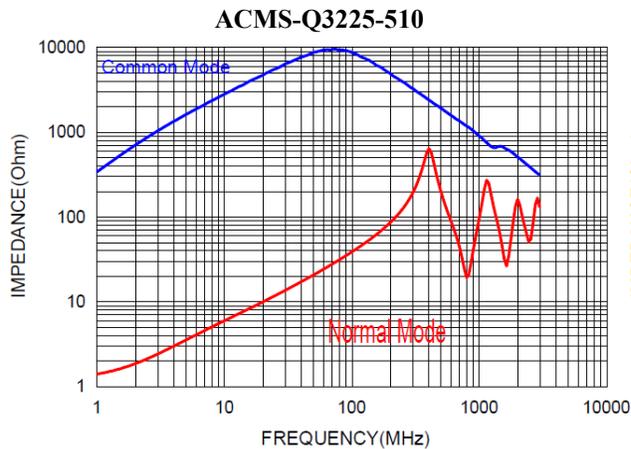
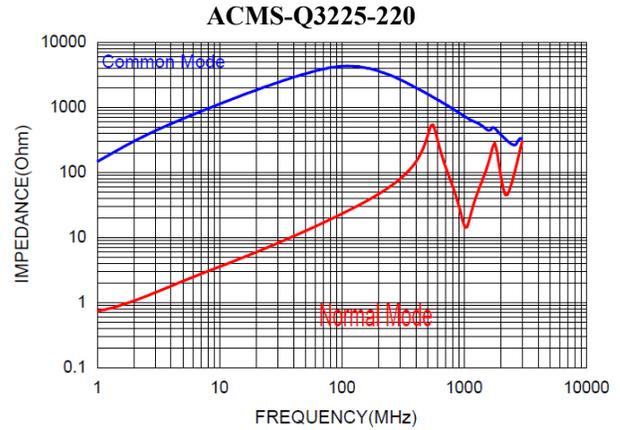
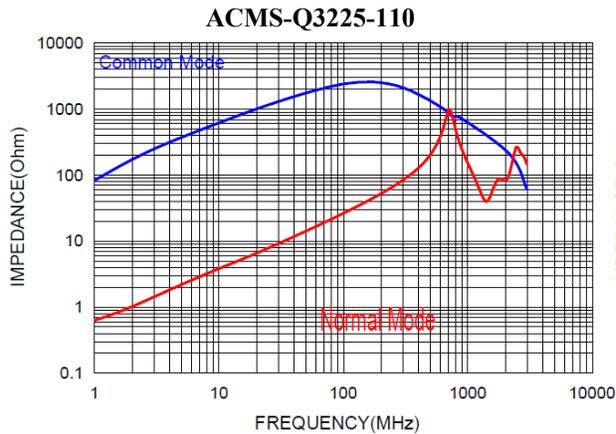


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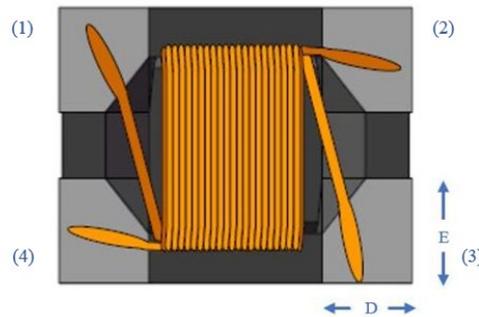
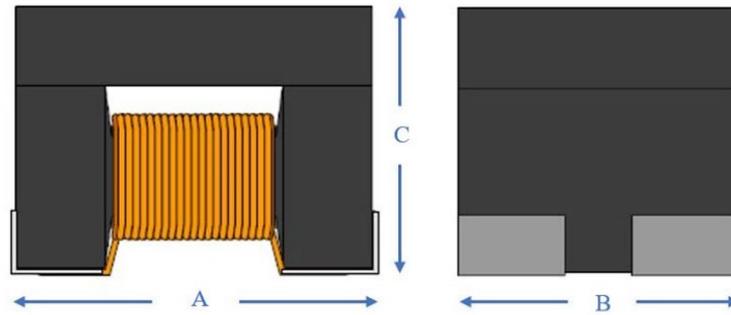
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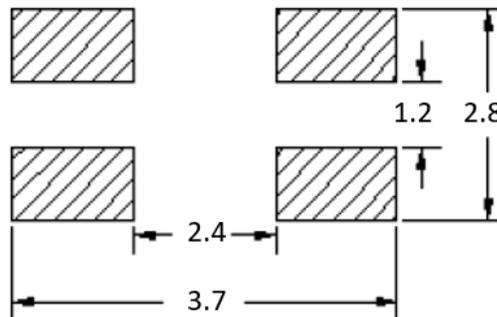
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Mechanical Specifications



| A | B | C | D | E |
|-----------|----------|---------|------------|-----------|
| 3.20 ±0.3 | 2.5 ±0.2 | 2.5 Max | 0.55 ±0.15 | 0.75 ±0.2 |



Recommended Layout

Dimensions: mm



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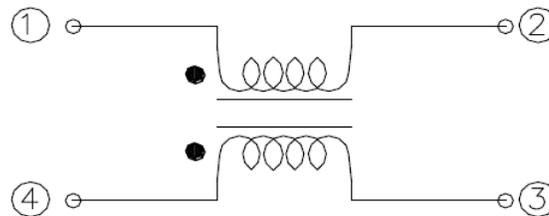


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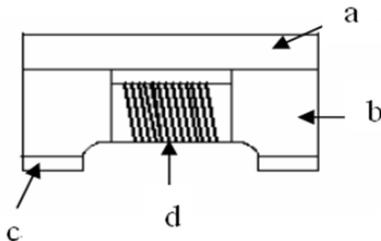


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Schematic

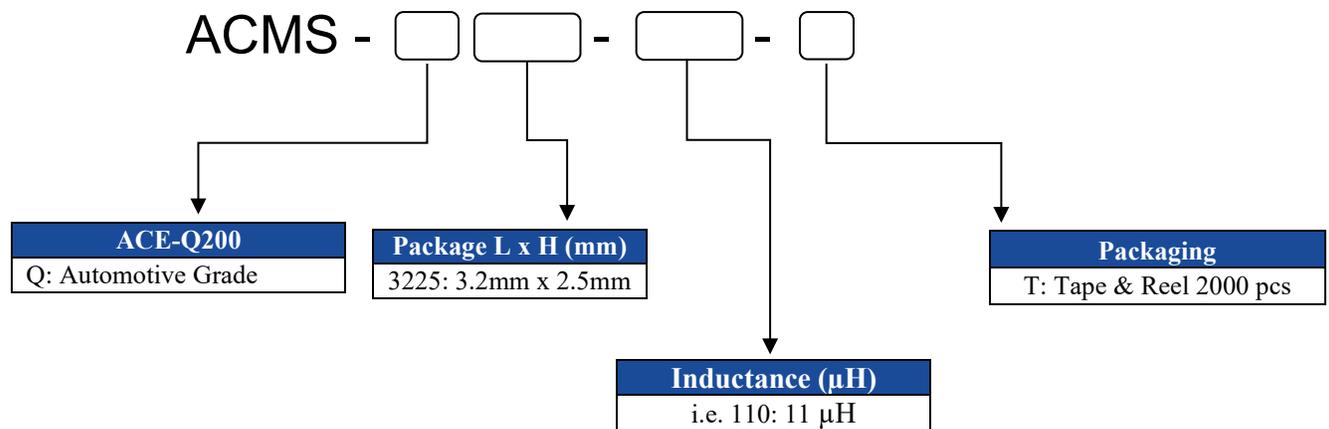


Materials



| | 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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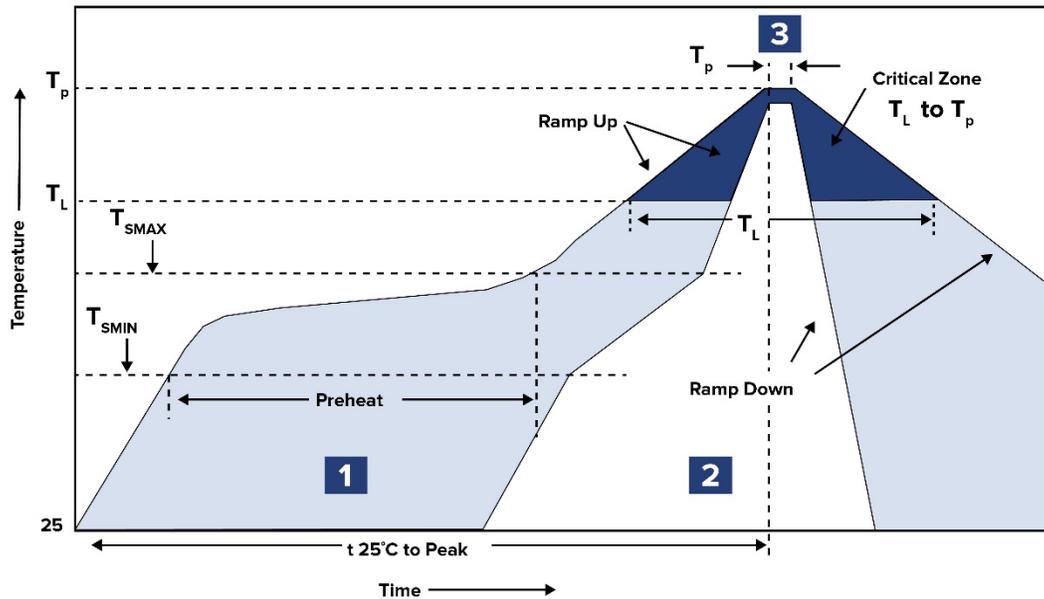


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Reflow Profile



| Zone | Description | Temperature | Times |
|------|-------------|---|---------------|
| 1 | Preheat | $T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C | 60 ~ 120 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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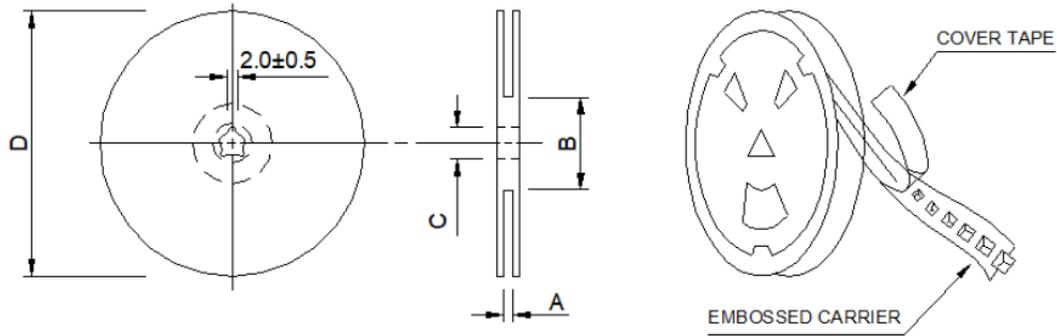
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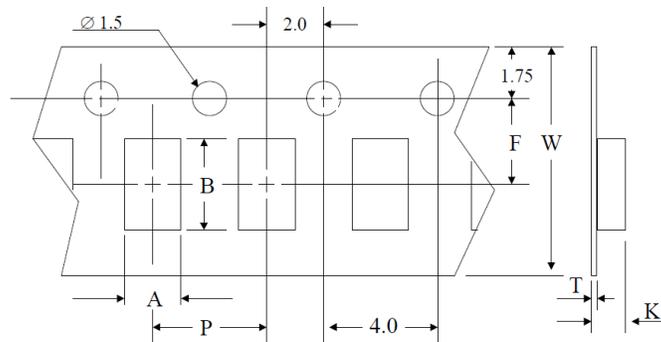
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Packaging

Tape & Reel: 2000pcs/reel



| Series | A | B | C | D |
|------------|---------------|----------------|----------------|---------------|
| ACMS-Q3225 | 9.0 ± 0.5 | 60.0 ± 2.0 | 13.5 ± 0.5 | 178 ± 2.0 |



| W | P | F | P0 | B | A | K | D | D1 | t |
|------------|------------|------------|------------|------------|------------|------------|----------|------------|------------|
| 8.0 | 4.0 | 3.5 | 4.0 | 3.72 | 2.88 | 2.5 | 1.5 | 1.00 | 0.26 |
| ± 0.10 | +0.10/-0 | ± 0.10 | ± 0.05 |

Dimensions: mm

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