

AEC-Q200 Automotive Mini Molded Power Inductor



AOTA-B201612Q

Request Samples



Check Inventory



2.0 x 1.6 x 1.2mm

RoHS/RoHS II Compliant

MSL Level = 1

Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 Grade 0 qualified (-50°C ~ +150°C)
- Shielded construction
- Soft saturation
- Low DCR, High Efficiency
- High temperature current rating

Applications

- Body electronics and comfort system
- Infotainment and entertainment
- Electric vehicles
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high-power switch mode power supplies.

Electrical Specifications

Part Number*	Inductance	Tolerance	DC Resistance		Saturation Current		Temperature Rise Current	
	1MHz/1.0V		Typ.	Max.	Typ.	Max.	Typ.	Max.
Units	μH	%	mΩ		A		A	
Symbol	L	M	DCR		Isat		Irms	
AOTA-B201612QR10	0.10	20	5	9	10	9	8	6.8
AOTA-B201612QR24	0.24	20	14	17	8	6.8	5.8	5.2
AOTA-B201612QR33	0.33	20	18	22	6.4	5.4	5.5	4.9
AOTA-B201612QR47	0.47	20	21	25	5.4	4.8	4.5	4.7
AOTA-B201612Q1R0	1.0	20	39	45	3.8	3.3	3.6	3.2
AOTA-B201612Q1R5	1.5	20	67	80	3.2	2.8	2.5	2.3
AOTA-B201612Q2R2	2.2	20	105	120	2.8	2.5	2.0	1.8

*For full part numbers, please refer to the Part Identification section.

Test Conditions

Isat: DC current at which the inductance drops 30% from its initial value.

Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 20°C ambient.

Operating Temperature: -50°C ~ +150°C (including self-temperature rise)

Storage Condition: -50°C ~ +150°C (on board), -10°C ~ +40°C (with packaging) and R.H. 70% max.

AOTA-B201612Q Series is **RoHS Compliant and Pb free.**

AOTA-B201612Q is AEC-Q200 Automotive qualified (grade 0)



12117 Bee Caves Rd Bldg-3, Ste 200
Bee Cave, TX 78738
Phone: 512-371-6159 | Fax: 512-351-8858
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Part Identification

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Inductance Code

See Electrical Specification table

Tolerance

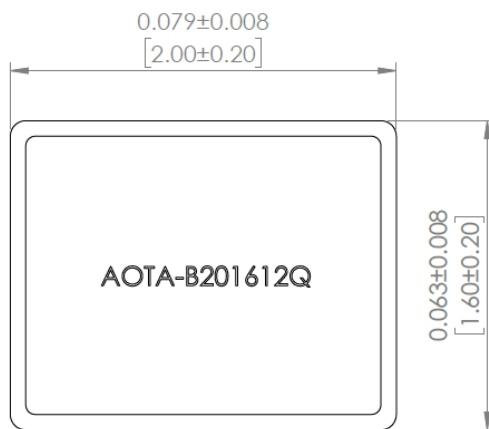
M = $\pm 20\%$

Packaging

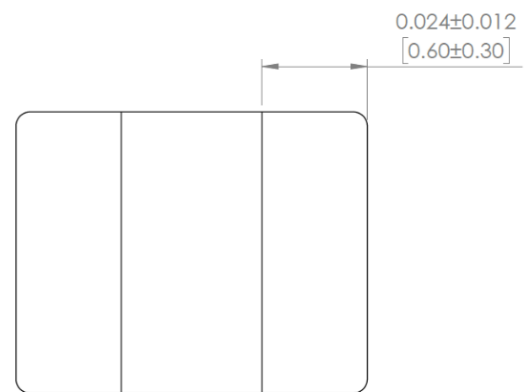
T: Tape and Reel (See Packaging)

B: Bulk

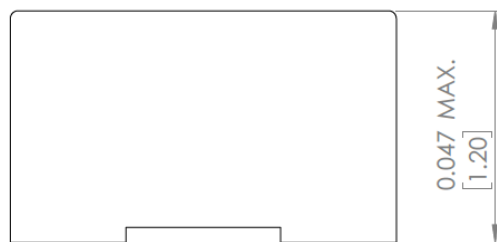
Mechanical Specifications



TOP VIEW



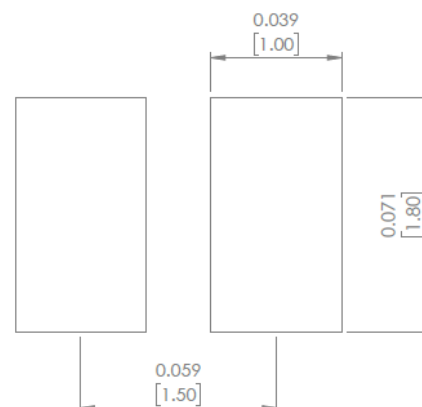
BOTTOM VIEW



FRONT VIEW

Marking on Top view is for illustration purposes only

Recommended Land Pattern



Dimensions: Inches[mm]



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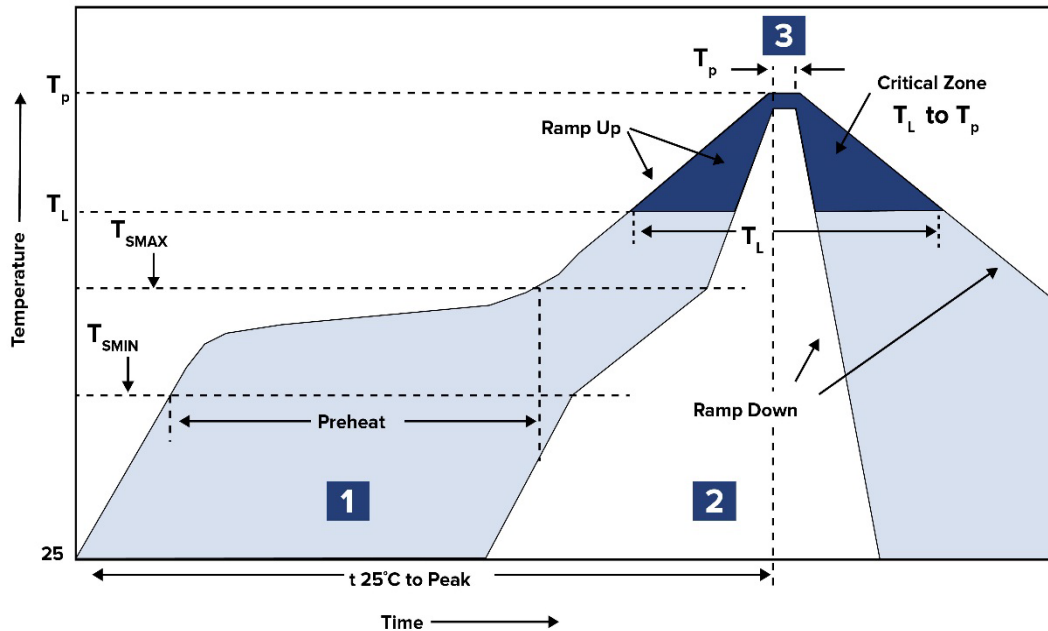


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Reflow Profile



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 ~ 90 sec.
3	Peak heat	T_P 260°C	5 sec. MAX

Ref. solder paste: Sn/3.0Ag/0.5Cu

Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.

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