

VERTICALLY ASSEMBLED POWER INDUCTOR



AVR-1Z100612S

Request Samples



Check Inventory



9.8 x 5.8 x 11.9 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Features

- Ferrite Core
- Low DCR, High Efficiency
- High temperature current rating
- High Saturation current rating

Applications

- Single and Multiphase DC-DC converters
- Voltage regulator modules (VRMs)
- Renewable energy, Power inverters, DC links
- Electric Vehicles (EVs)
- Telecom infrastructure, datacenters, servers and switches
- Industrial and robotics equipment
- Medium and high-power switch mode power supplies (SMPS)

Electrical Specifications @ 25°C

Part Number*	Inductance	Inductance Tolerance	DC Resistance	Saturation Current		Temperature Rise Current
	100KHz/1.0V		mΩ	Typ.		Typ.
Units	nH	%		A		A
Symbol	L	L	DCR	Isat1@ 25°C	Isat2@ 100°C	Irms
AVR-1Z100612S70NLT	70	15%	0.125±10%	160	110	83
AVR-1Z100612S90NLT	90			140	110	
AVR-1Z100612SR10LT	100			120	110	
AVR-1Z100612SR12LT	120			110	100	
AVR-1Z100612SR15LT	150			88	78	
AVR-1Z100612SR18LT	180			70	60	
AVR-1Z100612SR22LT	220			60	50	
AVR-1Z100612SR30LT	300			40	32	
AVR-1Z100612SR47LT	470			27	22	

* The "T" at the end of the part number refers to "Tape & Reel" packaging. For other options, please refer to the Part Identification section.

Test Conditions:

Isat1: DC current at which the inductance drops 20% from its nominal value at 25°C.

Isat2: DC current at which the inductance drops 20% from its nominal value at 100°C.

Irms: DC current that causes the temperature rise (ΔT , approximate 40 °C) from 25°C ambient.

Operating Temperature: -40°C ~ +125°C. (including self-temperature rise)

Storage Condition: -40°C ~ +125°C (on board), -10°C ~ +40°C (with packaging) and R.H. 70 max.

AVR-1Z100612S Series is **RoHS Compliant and Pb free.**



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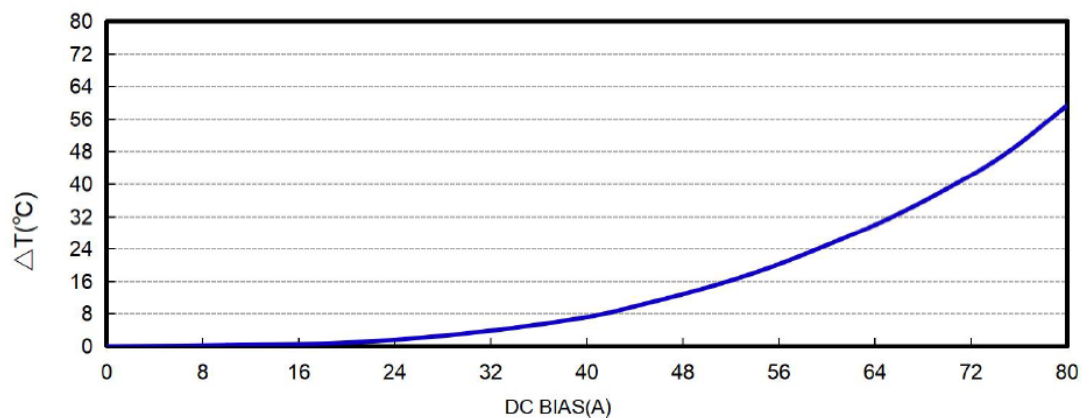
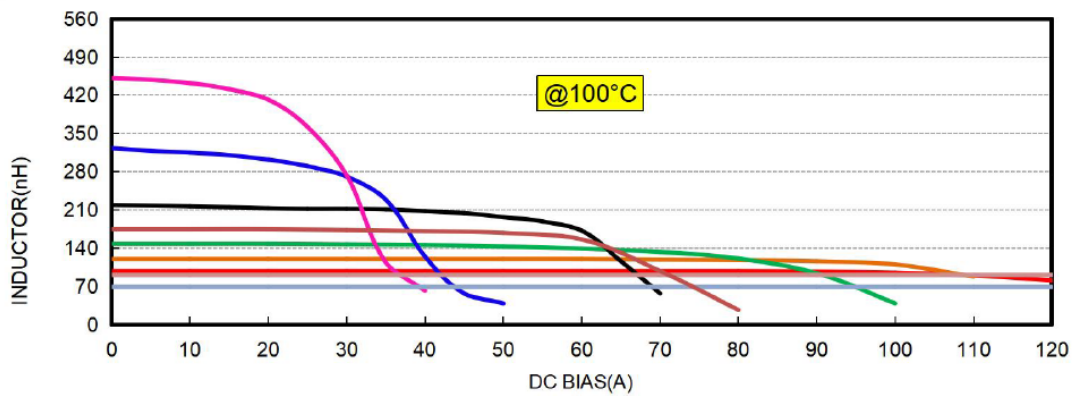
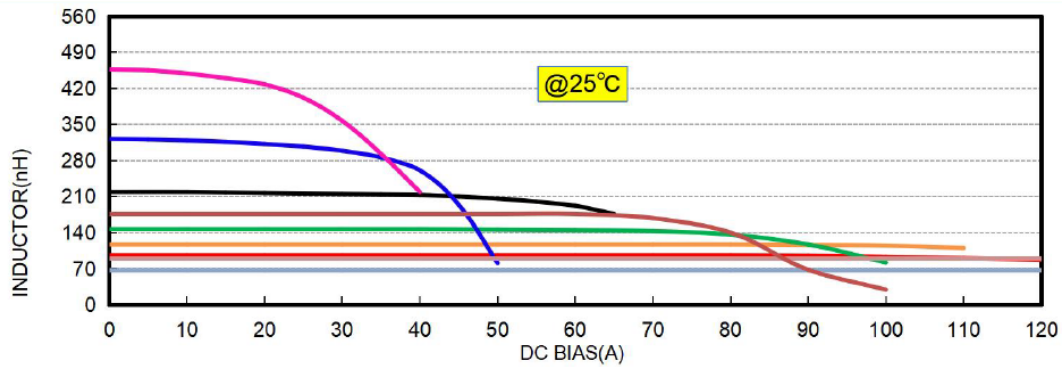


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Performance Graphs



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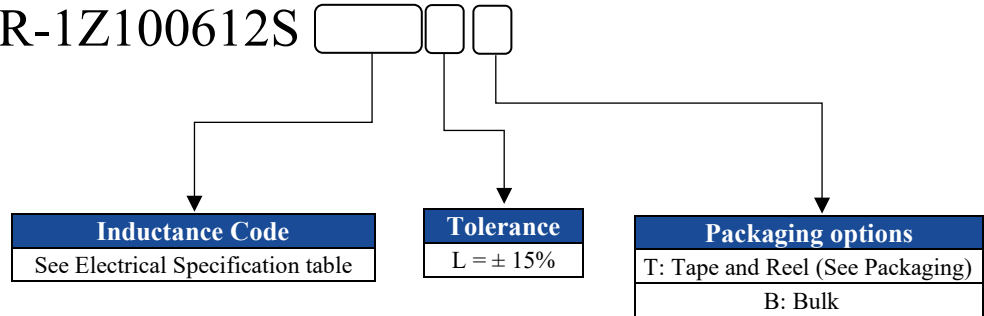
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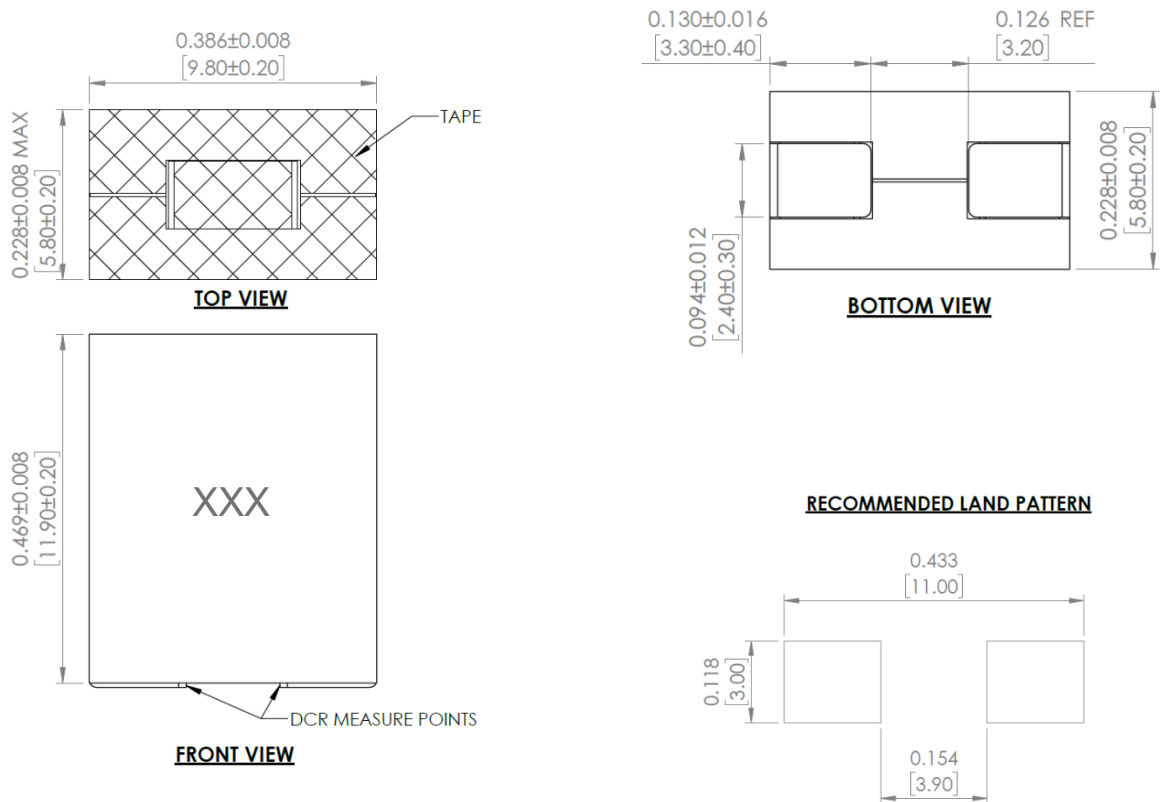
Part Identification

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*Tolerance only available as indicated in electrical spec. table

Mechanical Specifications



Markings: Inductance code.

Dimensions: Inches [mm]



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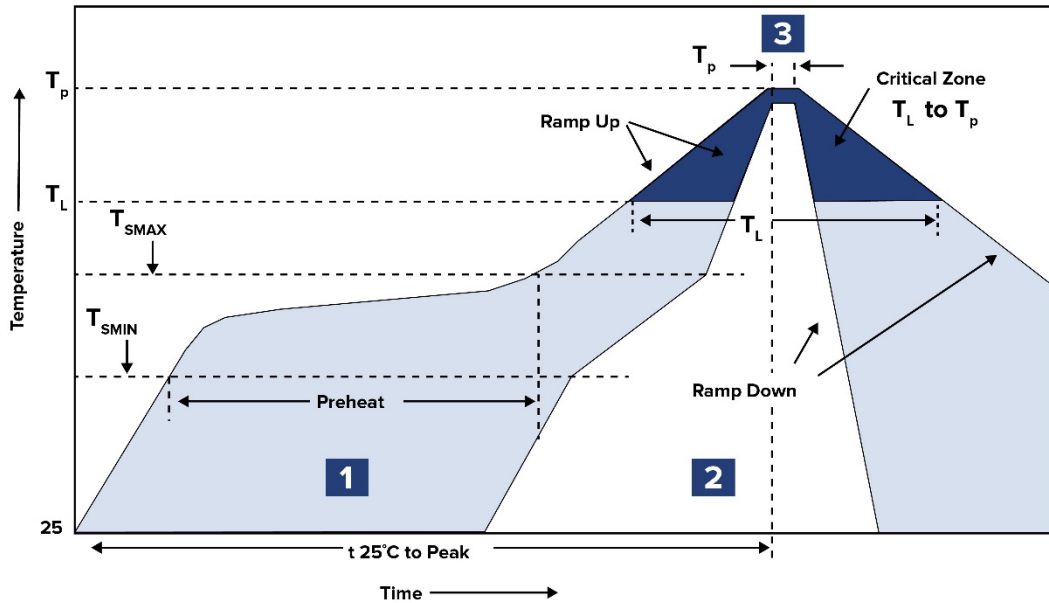


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak heat	T_P 250°C ± 5°C	5 ± 0.5 sec.

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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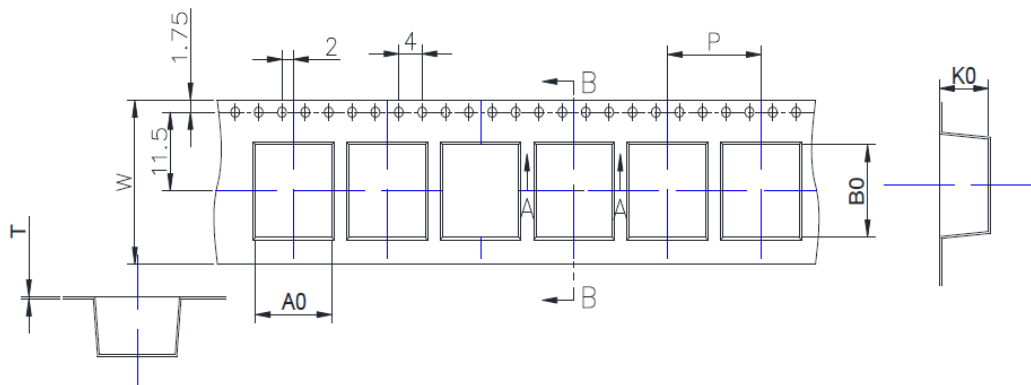
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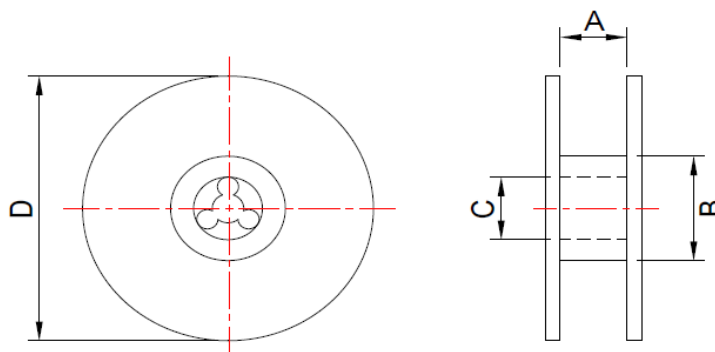
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Packaging

Tape & Reel: 300 pcs/reel



Ao	Bo	Ko	P	T	W
6.2 ± 0.1	10.2 ± 0.1	12.2 ± 0.1	16.0 ± 0.1	0.5 ± 0.05	24.0 ± 0.3



A	B	C	D
24.0 ± 0.5	100 ± 2.0	13.5 ± 0.5	330 Ref.

Dimensions: mm

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