

VERTICALLY ASSEMBLED POWER INDUCTOR



AVR-1Z100506S

Request Samples



Check Inventory



10.0 x 4.8 x 6.0mm

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			Typ.		Typ.
Units	nH	%	mΩ	A		A
Symbol	L	L	DCR	Isat1@ 25°C	Isat2@ 100°C	Irms
AVR-1Z100506S70NLT	70	15%	0.23±10%	100	77	70
AVR-1Z100506SR10LT	100			67	52	
AVR-1Z100506SR12LT	120			55	42	

* 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 Voltage: 50VDC (Typ.)

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-1Z100506S Series is **RoHS Compliant and Pb free.**



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6/3/2024

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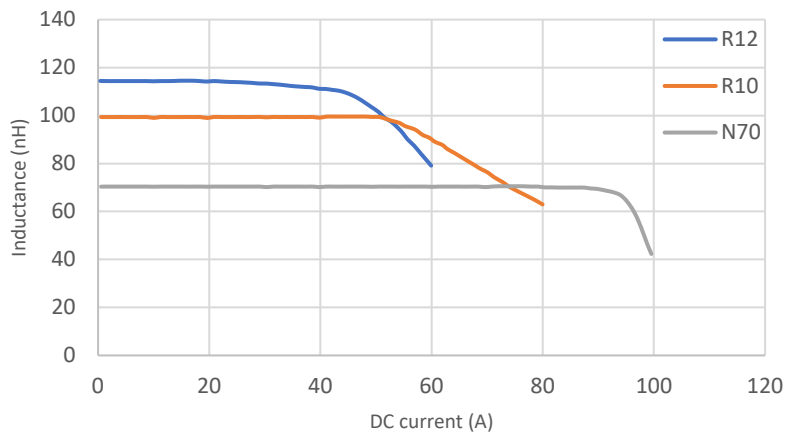
Check Inventory



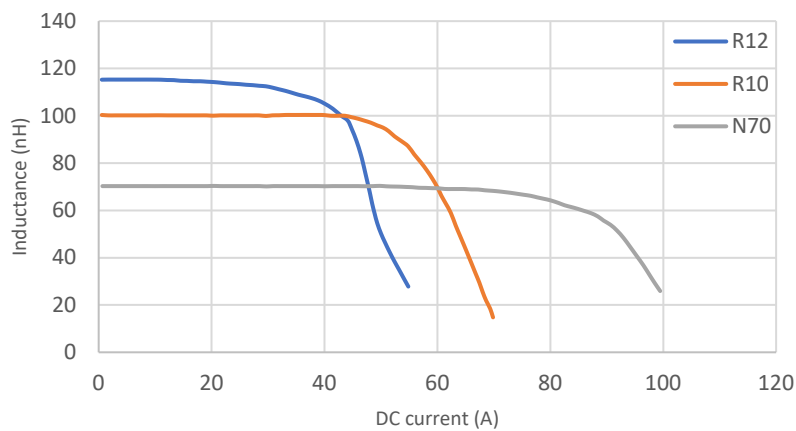
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Performance Graphs

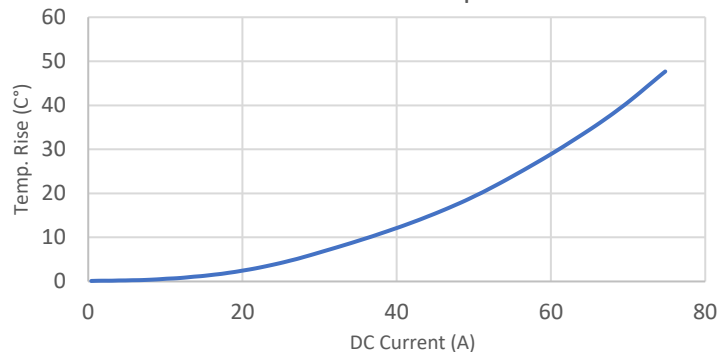
AVR-1Z100506S Series Saturation Graphs @25°C



AVR-1Z100506S Series Saturation Graphs @100°C



AVR-1Z100506S Series Temperature Rise



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Part Identification

AVR-1Z100506S

Inductance Code

See Electrical Specification table

Tolerance

$L = \pm 15\%$

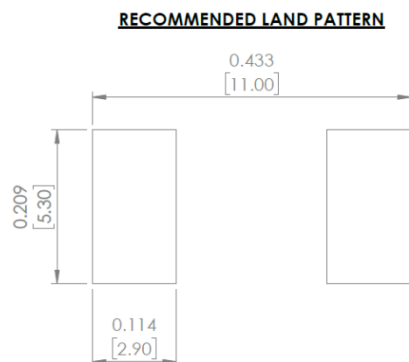
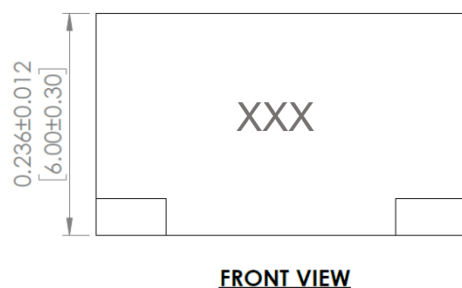
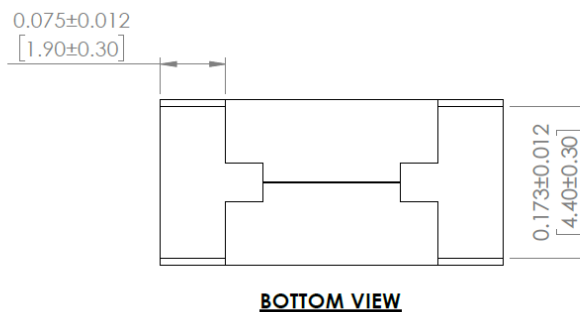
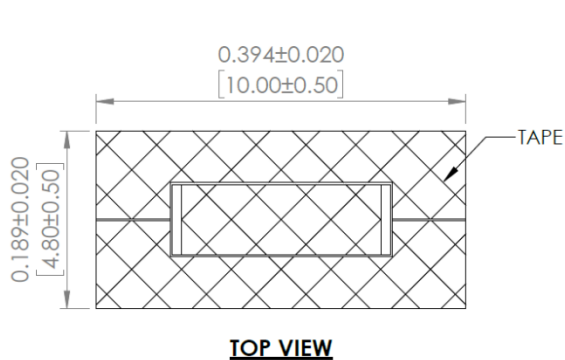
Packaging options

T: Tape and Reel (See Packaging)

B: Bulk

*Tolerance only available as indicated in electrical spec. table

Mechanical Specifications



Markings: Inductance code.

Dimensions: Inches [mm]



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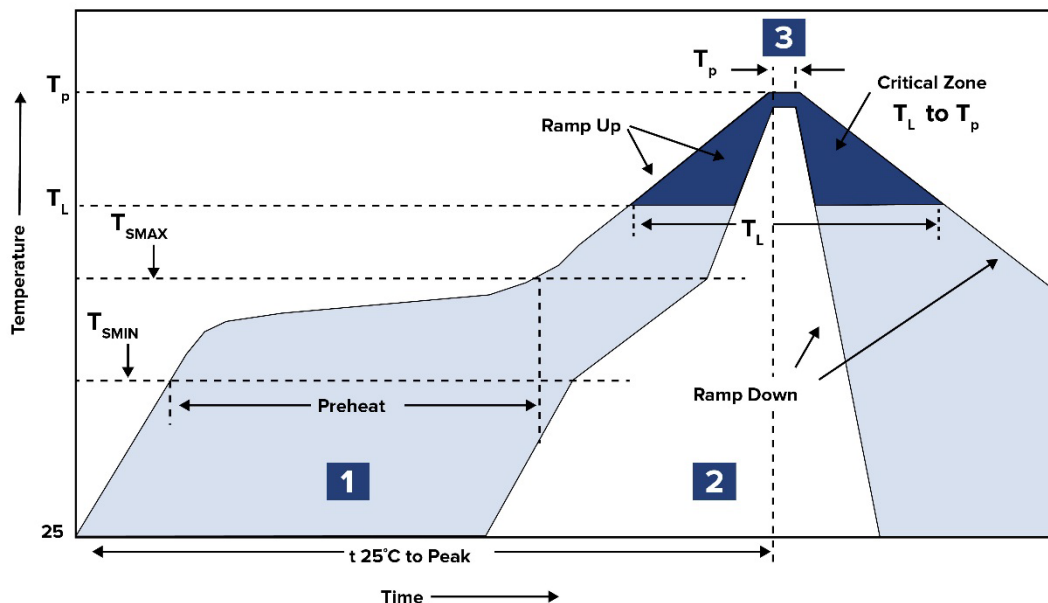


10.0 x 4.8 x 6.0mm

RoHS/RoHS II Compliant

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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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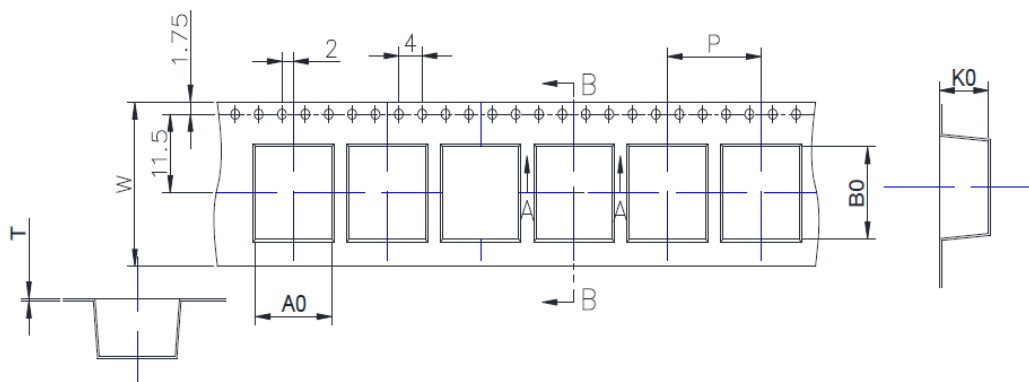
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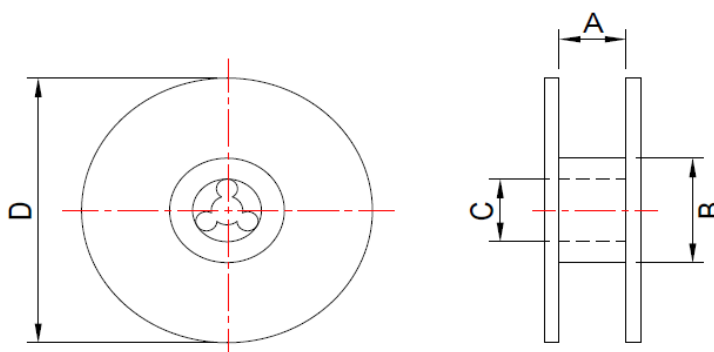
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Packaging

Tape & Reel: 800 pcs/reel



Ao	Bo	Ko	P	T	W
5.1 ± 0.3	10.7 ± 0.3	6.5 ± 0.3	12.0 ± 0.2	0.35 ± 0.10	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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