

# VERTICALLY ASSEMBLED POWER INDUCTOR



**AVR-1Z070711S**

Request Samples



Check Inventory



6.7 x 6.6 x 10.7mm  
**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	Full Load Inductance	Dim. B	DC Resistance	Saturation Current		Temperature Rise Current
	100KHz/1.0V		Min.	±0.3		Typ.		Typ.
Units	nH	%	nH	mm	mΩ	A		A
Symbol	L	K, L	FLL	B	DCR	Isat1@ 25°C	Isat2@ 100°C	Irms
AVR-1Z070711S55NLT	55	15	42	6.6	0.145±10%	155	130	76
AVR-1Z070711S70NKT	70	10	49					
AVR-1Z070711SR10KT	100		70					
AVR-1Z070711SR12KT	120		84					
AVR-1Z070711SR15KT	150		105					
AVR-1Z070711SR22KT	220		154					
AVR-1Z070711SR33KT	330		231					

\* 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 to FLL at 25°C.

**Isat2:** DC current at which the inductance drops to FLL at 100°C.

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 25°C ambient.

**Dim. B:** Refer to the Mechanical Specs section.

**DC Resistance:** Nominal DCR measured from point 'a' to 'b'. (refer to the Mechanical specs section)

**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-1Z070711S Series is RoHS Compliant and Pb free.**



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**REVISION Initial Release :**  
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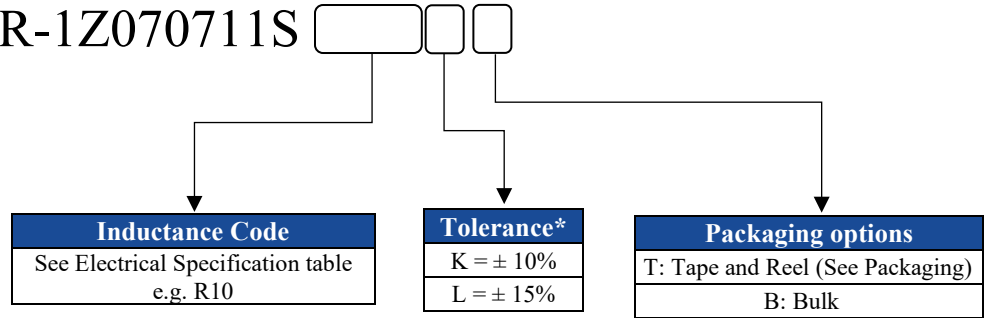
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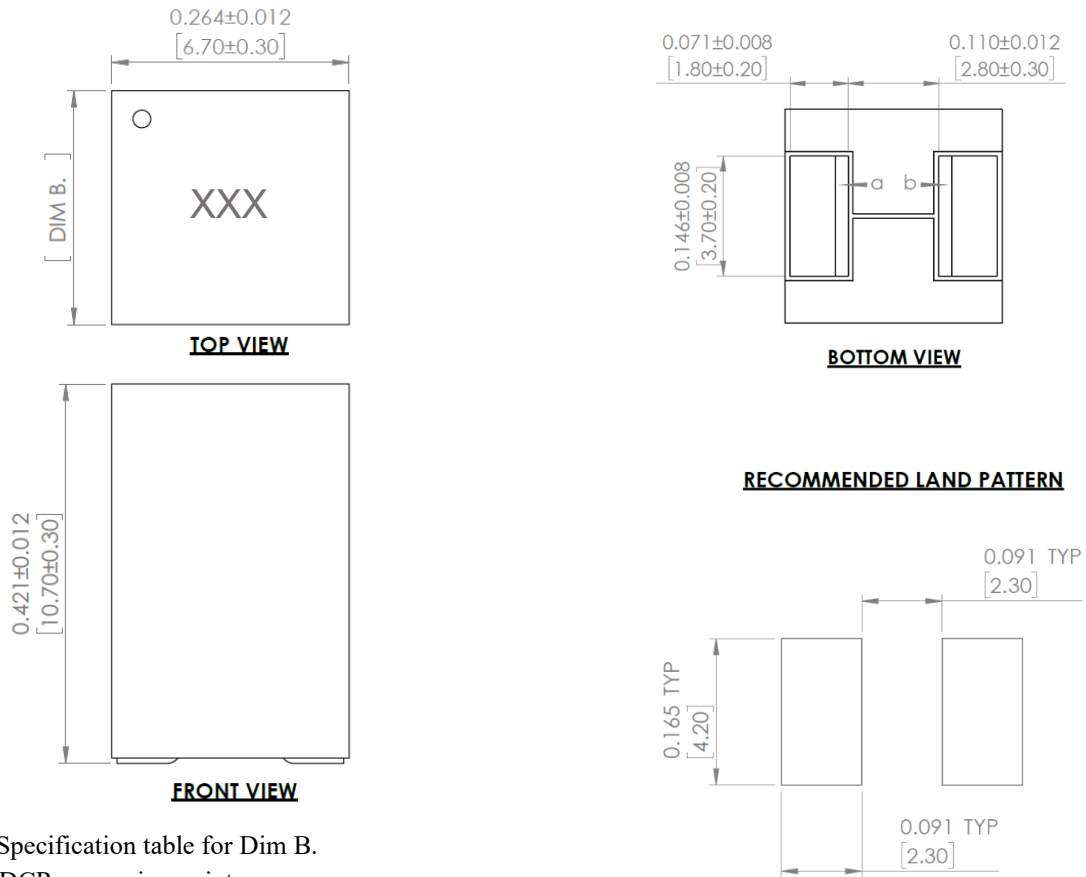
## Part Identification

AVR-1Z070711S



\*Tolerance only available as indicated in electrical spec. table

## Mechanical Specifications



Refer to the Specification table for Dim B.

'a' and 'b': DCR measuring points.

Markings: Inductance code.

Dimensions: Inches [mm]



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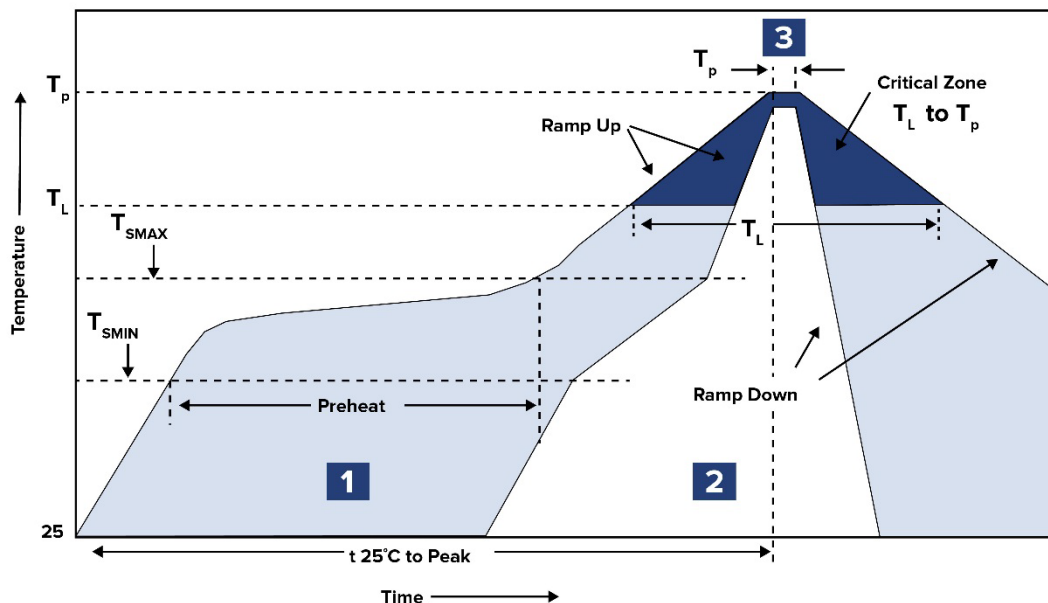


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C Max	5 Sec. Max

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

Time from 25°C to peak: 8 Mins

Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.



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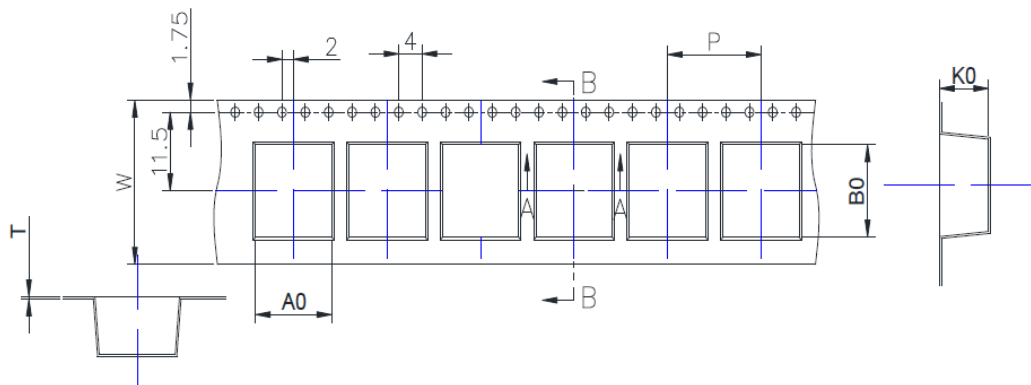
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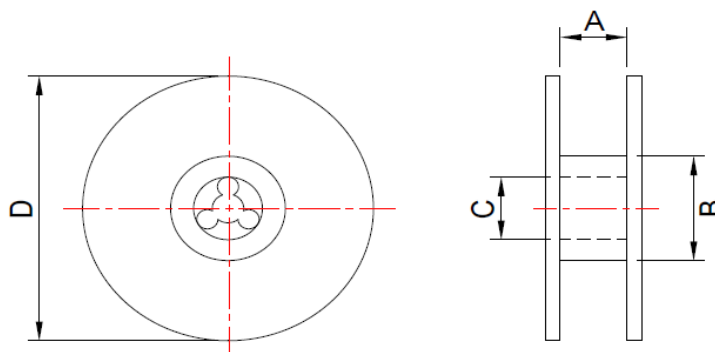
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## Packaging

**Tape & Reel: 300 pcs/reel**



Ao	Bo	Ko	P	T	W
7.1 ± 0.10	7.2 ± 0.10	11.2 ± 0.15	16.0 ± 0.10	0.5 ± 0.05	24.0 ± 0.30



A	B	C	D
24.5 ± 0.2	100 ± 2.0	13.0 ± 0.2	330 Ref.

**Dimensions: mm**

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