

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			134	114	
AVR-1Z070711SR10KT	100		70	93		79		
AVR-1Z070711SR12KT	120		84	76		65		
AVR-1Z070711SR15KT	150		105	60		51		
AVR-1Z070711SR22KT	220		154	42		35		
AVR-1Z070711SR33KT	330		231	28		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 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 (ΔT , 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 :
6/10/2024

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Part Identification

AVR-1Z070711S

Inductance Code

See Electrical Specification table
e.g. R10

Tolerance*

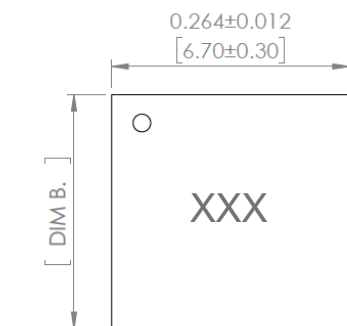
K = $\pm 10\%$
L = $\pm 15\%$

Packaging options

T: Tape and Reel (See Packaging)
B: Bulk

*Tolerance only available as
indicated in electrical spec. table

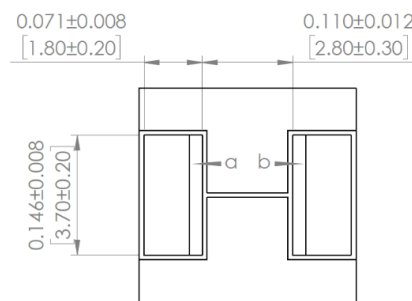
Mechanical Specifications



TOP VIEW

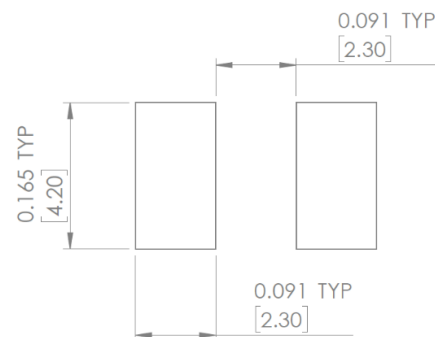


FRONT VIEW



BOTTOM VIEW

RECOMMENDED LAND PATTERN



Refer to the Specification table for Dim B.

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

Markings: Inductance code.

Dimensions: Inches [mm]



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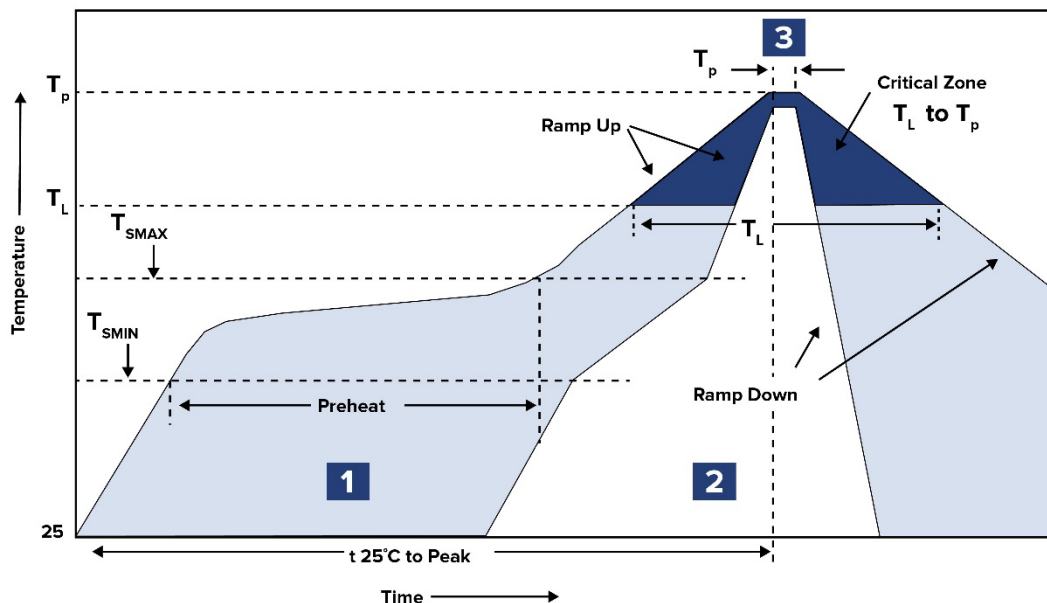


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Reflow Profile



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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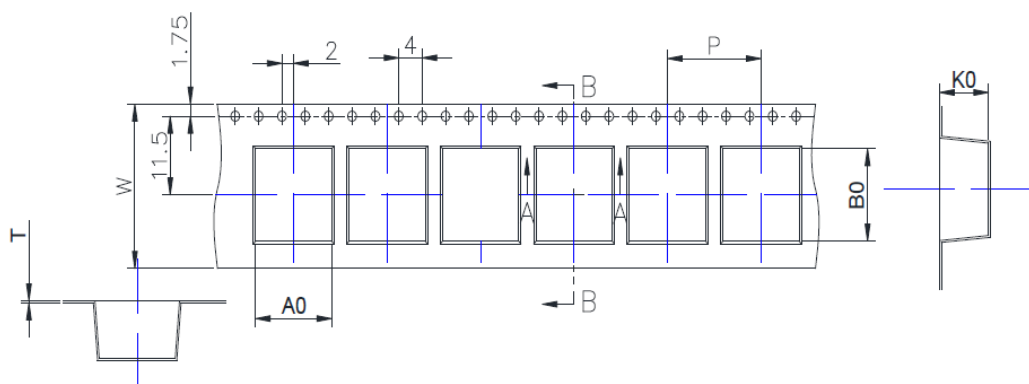
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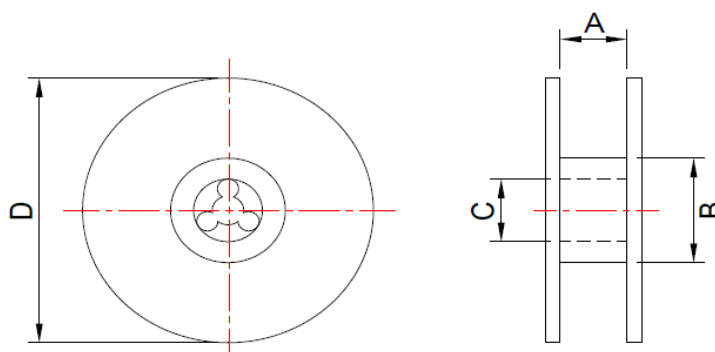
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Packaging

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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