

# HORIZONTALLY ASSEMBLED POWER INDUCTOR



AVR-1F100808S

Request Samples



Check Inventory



10.8 x 8.2 x 8.5mm  
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-1F100808SR12LT	120	15%	0.12 ± 7%	94	84	70
AVR-1F100808SR15LT	150			79	70	
AVR-1F100808SR17LT	170			68	58	
AVR-1F100808SR22LT	220			60	45	
AVR-1F100808SR30LT	300			39	33	
AVR-1F100808SR40LT	400			21	16	

\* The "T" at the end of the part numbers 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 ( $\Delta T$ , 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-1F100808S Series is **RoHS Compliant and Pb free.**



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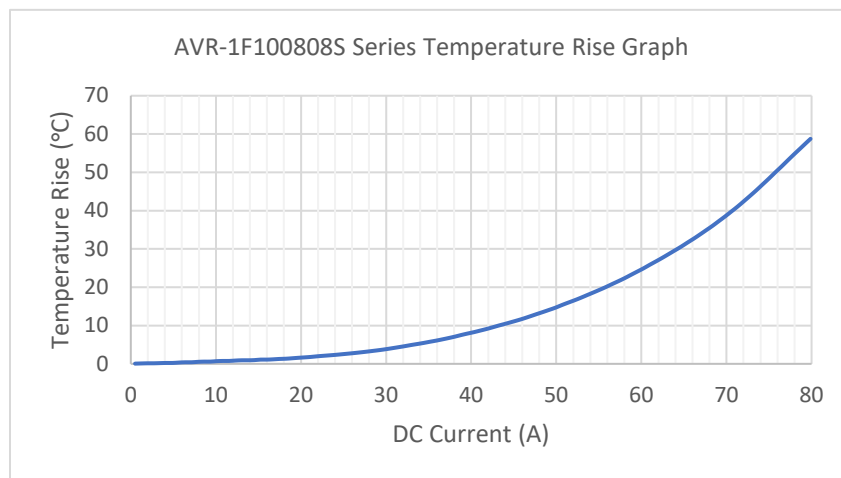
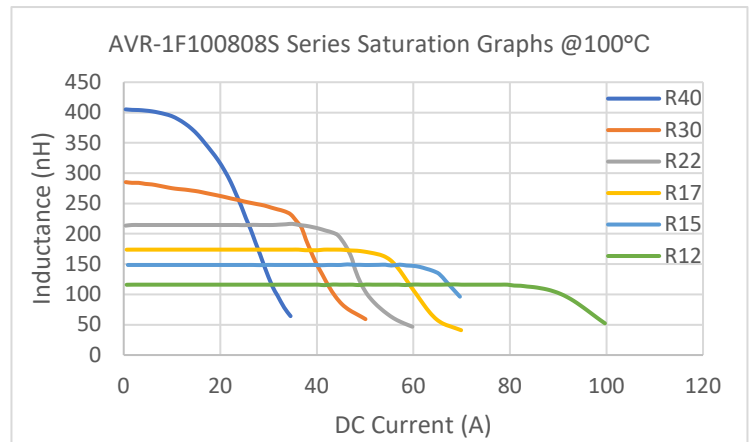
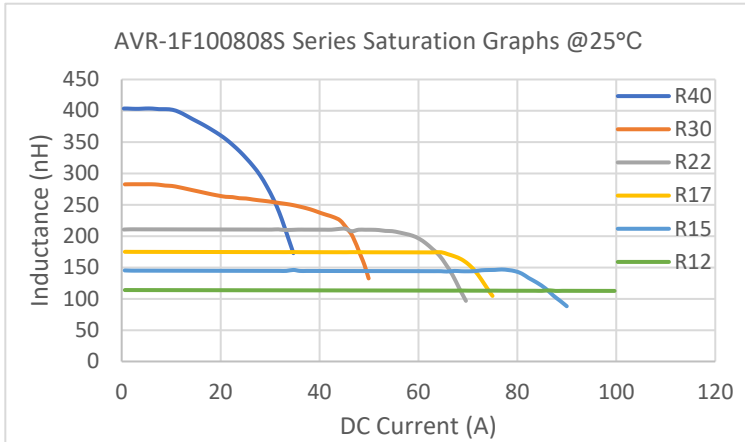


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## Performance Graphs



## Part Identification

AVR-1F100808S



**Inductance Code**  
 See Electrical Specification table

**Tolerance**  
 L = ± 15%

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

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



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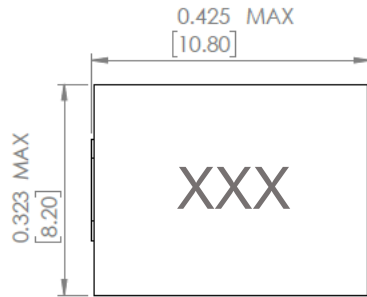


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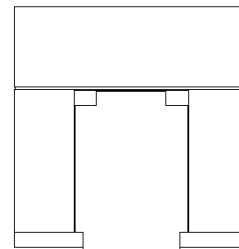


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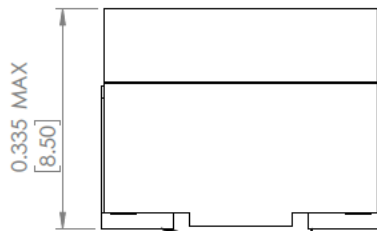
## Mechanical Specifications



**TOP VIEW**

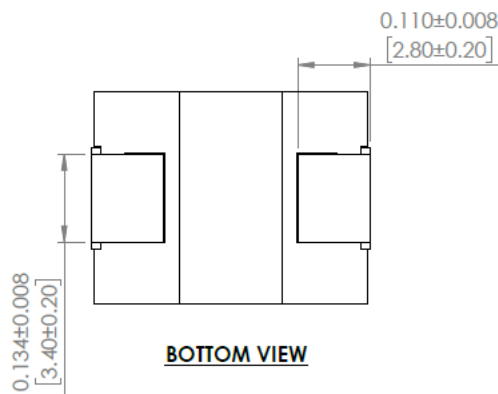


**SIDE VIEW**



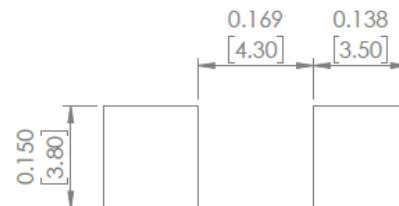
**FRONT VIEW**

DCR IS MEASURED AT THESE POINTS



**BOTTOM VIEW**

### RECOMMENDED LAND PATTERN



**Markings:** Inductance code.

**Dimensions:** Inches[mm]



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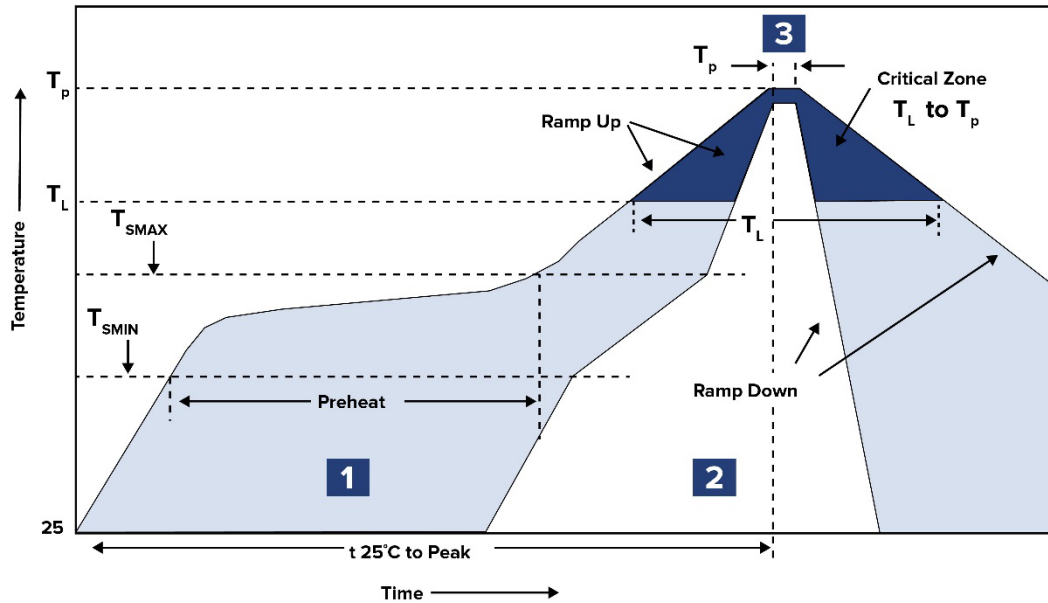


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 230°C	30 ~ 60 sec.
3	Peak heat	$T_P$ 245°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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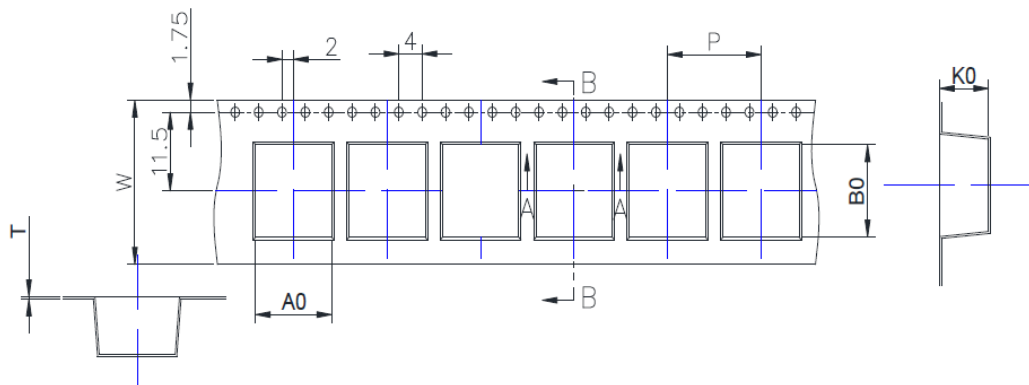
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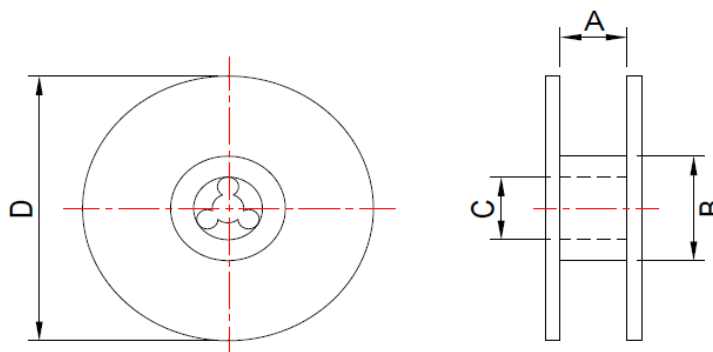
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## Packaging

**Tape & Reel: 600 pcs/reel**



A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P	T	W
8.2 ± 0.1	10.2 ± 0.1	8.2 ± 0.1	12.0 ± 0.1	0.4 ± 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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