

HORIZONTALLY ASSEMBLED POWER INDUCTOR



AVR-1F070608S

Request Samples



Check Inventory



7.2 x 6.5 x 8.2mm

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/0.25V | | mΩ | Typ. | | Typ. |
| Units | nH | % | | | A | |
| Symbol | L | M | DCR | Isat1@ 25°C | Isat2@ 100°C | Irms |
| AVR-1F070608S55NMT | 55 | 20% | 0.2 ± 7% | 110 | 100 | 63 |
| AVR-1F070608S70NMT | 70 | | | 92 | 78 | |
| AVR-1F070608SR10MT | 100 | | | 65 | 55 | |
| AVR-1F070608SR12MT | 120 | | | 54 | 46 | |

* 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 30% from its nominal value at 25°C.

Isat2: DC current at which the inductance drops 30% 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-1F070608S Series is **RoHS Compliant and Pb free.**



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6/20/2024

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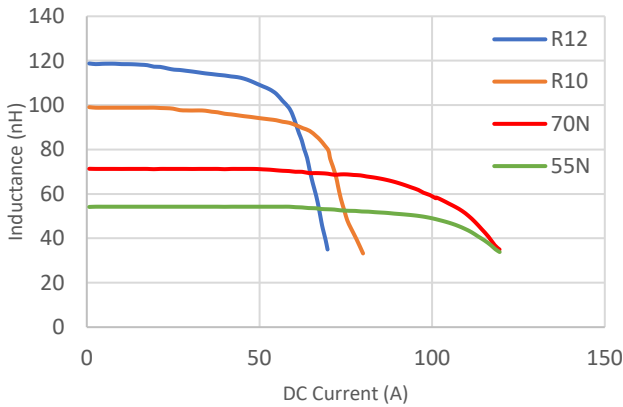
Check Inventory



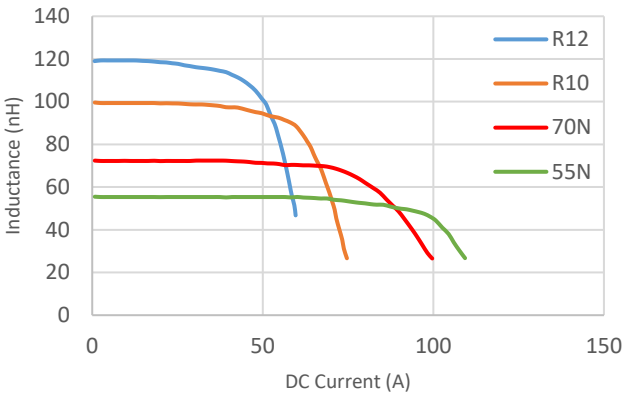
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Performance Graphs

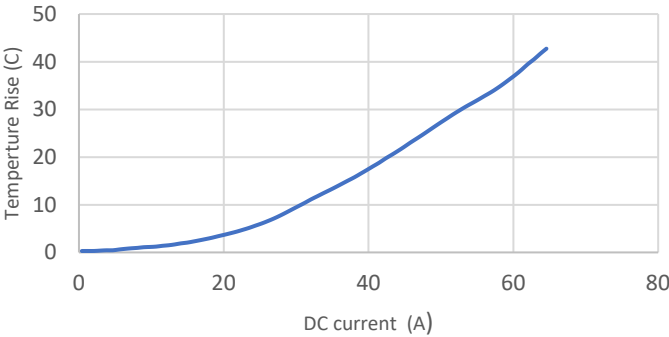
AVR-1F070608S Series Saturation Graphs @25C



AVR-1F070608S Series Saturation Graphs @100C



AVR-1F070608S Series Temperature Rise Graph



Part Identification

AVR-1F070608S



Inductance Code

See Electrical Specification table

Tolerance

M = $\pm 20\%$

Packaging Options

T: Tape and Reel (See Packaging)

B: Bulk

*Tolerance only available as indicated in electrical spec. table



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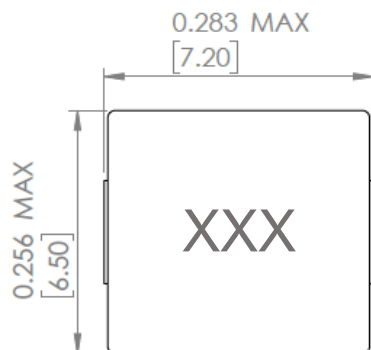


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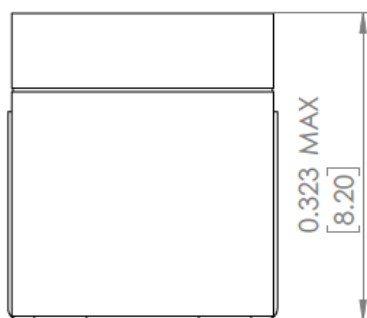
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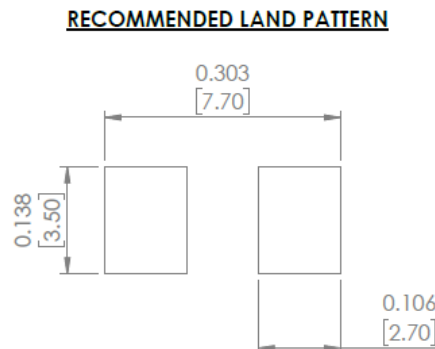
Mechanical Specifications



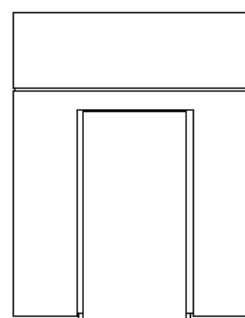
TOP VIEW



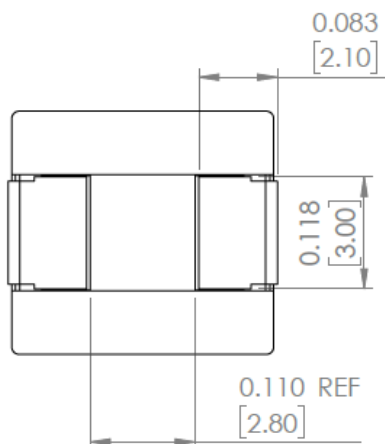
FRONT VIEW



RECOMMENDED LAND PATTERN



SIDE VIEW



BOTTOM VIEW

Markings: Inductance code.

Dimensions: Inches[mm]



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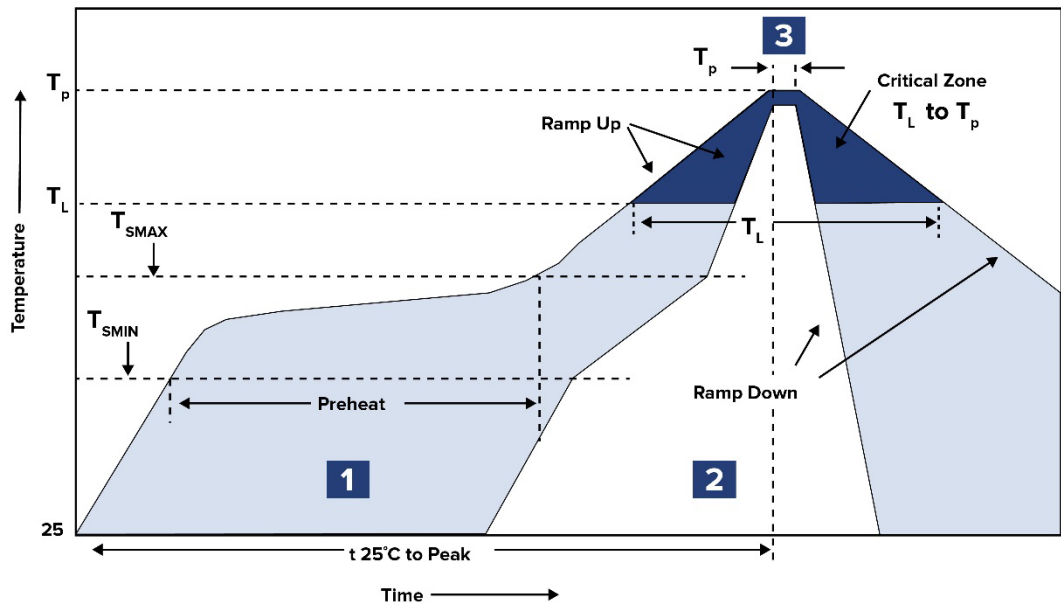


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RoHS/RoHS II Compliant

MSL Level = 1

Reflow Profile



| Zone | Description | Temperature | Times |
|------|-------------|---|---------------|
| 1 | Preheat | $T_{SMIN} \sim T_{SMAX}$ 150°C ~ 180°C | 60 ~ 180 sec. |
| 2 | Reflow | T_L 217°C | 60 ~ 150 sec. |
| 3 | Peak heat | T_P 255°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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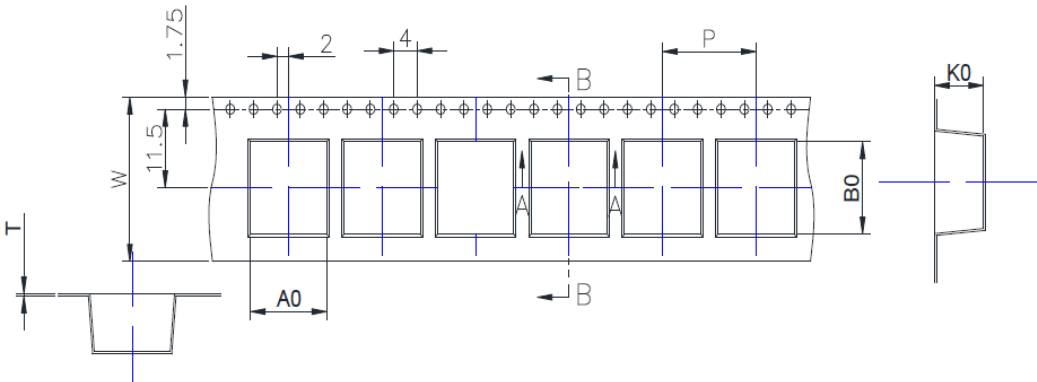
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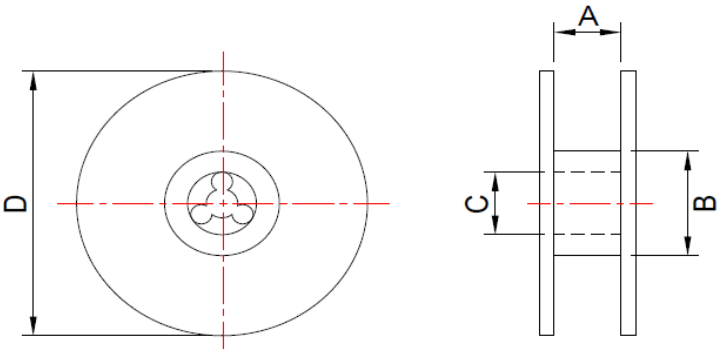
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Packaging

Tape & Reel: 500 pcs/reel



| Ao | Bo | Ko | P | T | W |
|-----------|-----------|-----------|------------|------------|------------|
| 6.7 ± 0.1 | 7.4 ± 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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