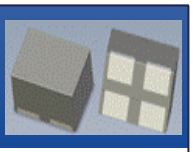
Multi-Phase Molded Power Inductor



AVR-2M080506S

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7.8 x 4.8 x 5.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Metal Alloy
- Low DCR, High Efficiency
- High temperature-rise current rating
- High saturation current rating

Applications

- Multiphase DC-DC converters
- Voltage regulator modules (VRMs)
- Renewable energy, Power inverters, DC links
- 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.	Max.	Max.	Typ.	Max.	Typ.
Units	nH	%	mΩ		A		A	
Symbol	L	M	DCR		Isat		Irms	
AVR-2M080506S85NM	85.0	± 20%	0.28	0.33	80.0	93.0	50.0	54.0

*For full orderable part number, please refer to the Part Identification section.

Test Conditions:
Test Frequency: 1.0V/100KHz
Isat: DC current at which the inductance drops 30% from its nominal value at 25°C.
Irms: DC current that causes the temperature rise (ΔT, approximate 40 ˚C) from 20°C ambient.
Operating Voltage: TBD
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. 85% max.
AVR-2M080506S Series is RoHS Compliant and Pb free.

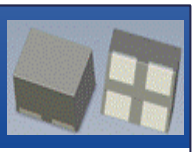
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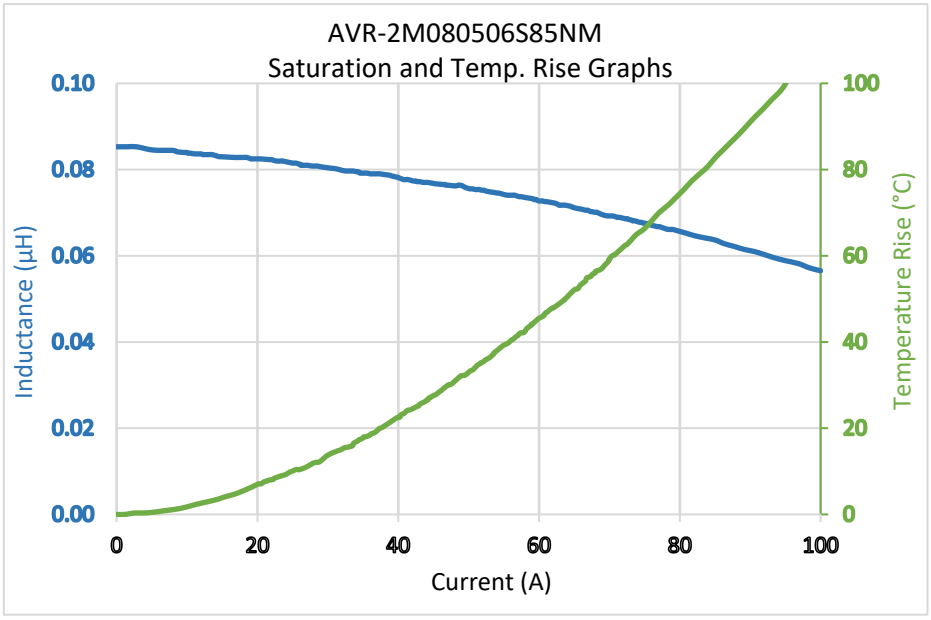


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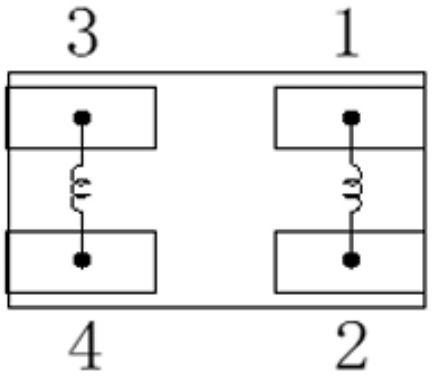
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Performance Graphs



Schematic:



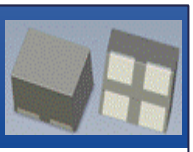
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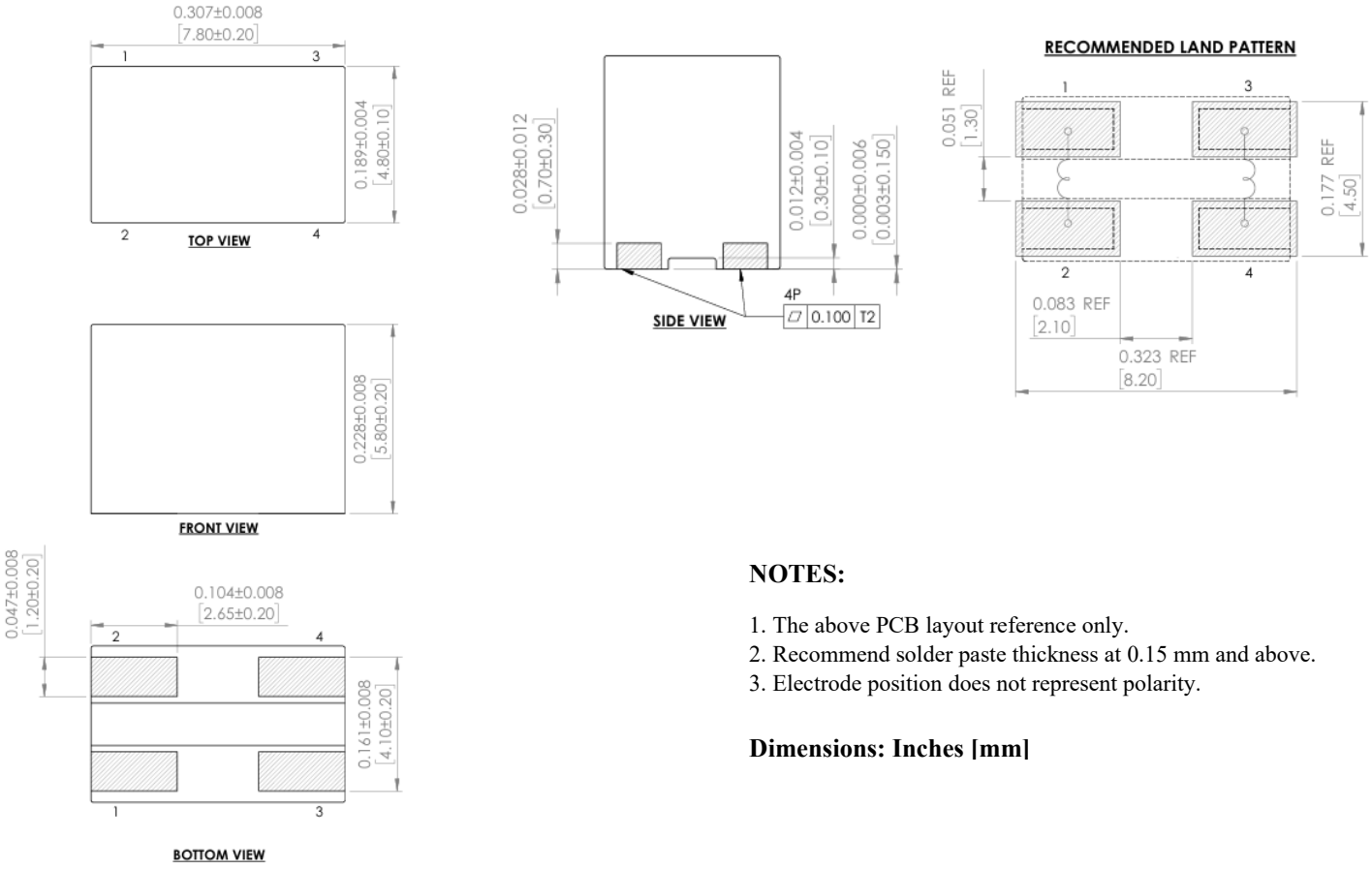
Part Identification

AVR-2M080506S ☐☐☐

Inductance Code	Tolerance	Packaging options
See Electrical Specification table e.g. 85N for 85nH	M = ± 20%	T: Tape and Reel (See Packaging) B: Bulk

*Tolerance only available as indicated in electrical spec. table

Mechanical Specifications



NOTES:

1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.15 mm and above.
3. Electrode position does not represent polarity.

Dimensions: Inches [mm]

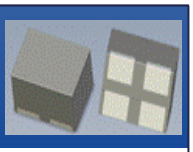
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Reflow Profile

Reflow standard: [JEDEC J-STD-020E]

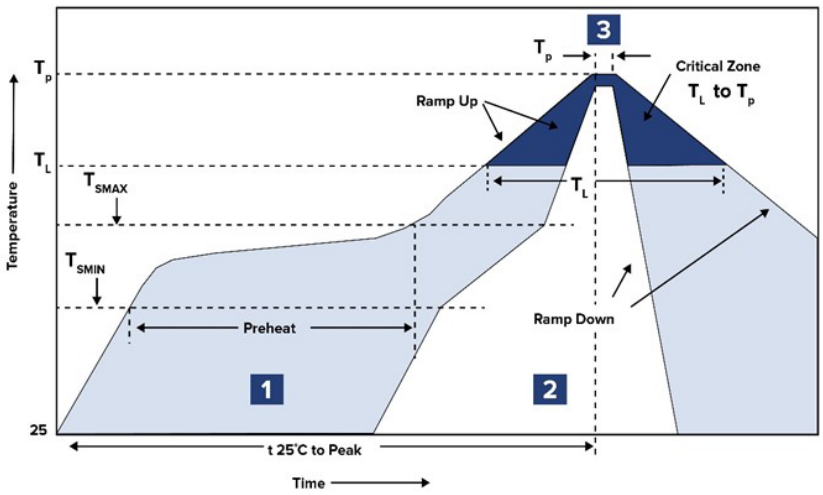


Table (1.2)

Pb-Free Process Classification Temperatures (T_c)			
Package Thickness	**Volume mm^3 <350**	**Volume mm^3 350-2000**	**Volume mm^3 >2000**
<1.6 mm	260 °C	260 °C	260 °C
1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
>2.5 mm	250 °C	245 °C	245 °C

Profile Feature	Pb-Free Assembly
Preheat / soak	
Temperature minimum (T_{smin})	150°C
Temperature maximum (T_{smax})	200°C
Time (T_{smin} to T_{smax}) (t_s)	60 - 120 sec.
Average ramp-up rate (T_{smax} to T_P)	3°C/sec. max
Liquidous temperature (T_L)	217°C
Time at liquidous (t_L)	60 - 150 sec.
Peak package body temperature (T_P)*	**See Table (1.2)**
Time (t_p)** within 5°C of the specified classification temperature (T_C)	30 sec.
Ramp-down rate (T_p to T_{smax})	6°C/sec. max
Time 25°C to peak temperature	8 min. max
Reflow cycles	2 max

*Tolerance for peak profile temperature (T_P) is defined as a supplier minimum and a user maximum.
**Tolerance for time at peak profile temperature (t_p) is defined as supplier minimum and a user maximum.

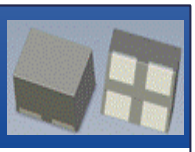
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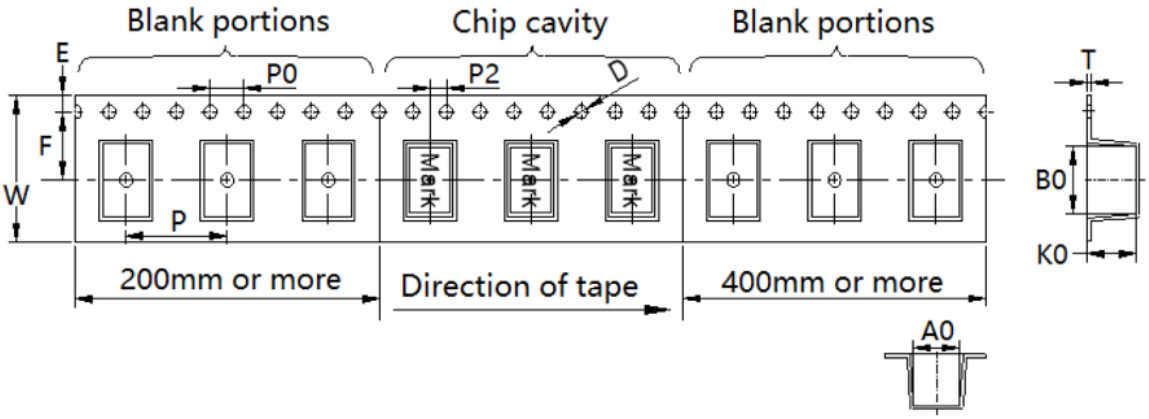
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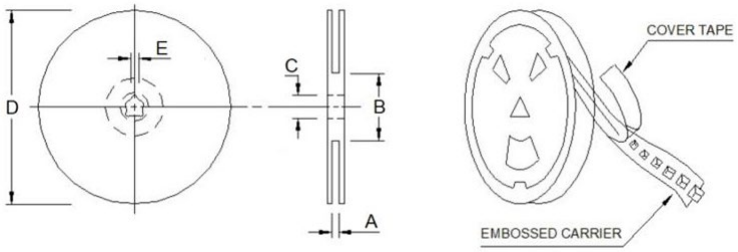
7.8 x 4.8 x 5.8 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 600 pcs/reel



Tape Specifications (mm)						
A0	**B0**	**D**	**E**	**F**	**K0**	**P**
5.6 Ref	8.6 Ref	1.5±0.1	1.75±0.1	7.5±0.1	6.3 Ref	12.0±0.1
P0	**P2**	**T**	**W**			
4.0±0.1	2.0±0.1	0.5±0.05	16±0.1			



Reel Specifications (mm)					
Type	**A**	**B**	**C**	**D**	**E**
13”x16mm	16.4 Ref	100 Ref	13.0 Ref	330	2.0 Ref

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