

#### **AVR-1M100705S**

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10.4 x 6.7 x 4.8 mm RoHS/RoHS II Compliant MSL Level = 1

#### **Features**

- Shielded construction
- Soft saturation
- High Power Density
- Low DCR, High Efficiency
- Perfect for multi-phased power circuitry

## **Applications**

- Desktop/ Server applications
- High current point-of-load (POL) converters
- Lighting
- Solar inverters and power
- Industrial and robotics
- Medium and high-power switch mode power supplies.

#### **Electrical Specifications**

Part Number	Inductance	Tolerance	DC Resistance	Saturation Current (Typ)	Temperature Rise Current	
	0.1MHz/1.0V			@25°C	Min.	
Units	nН	%	mΩ ±10%	A	A	
Symbol	L		DCR	Isat	Irms	
AVR-1M100705SR16L	160	±15%	0.205	60	42	

#### **Test Conditions**

**Isat**: DC current at which the inductance drops 30% from its value without current.

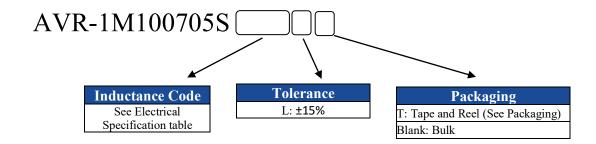
Irms: DC current that causes the temperature rise (ΔT, approximate 40 °C) from 20°C ambient

**Operating Temperature:**  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (including self-temperature rise) **Storage Condition:**  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  (with packaging) and R.H. <95% max

Operating Voltage: 40V (across inductor)

**AVR-1M100705S Series is RoHS Compliant and Pb free** 

#### Part Identification







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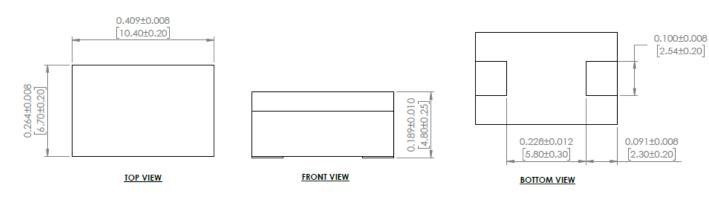


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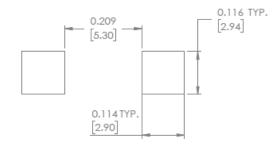
10.4 x 6.7 x 4.8 mm **RoHS/RoHS II Compliant** MSL Level = 1

### **Mechanical Specifications**



Dimensions: Inches [mm]

#### **Recommended Land Pattern**



Dimensions: Inches [mm]





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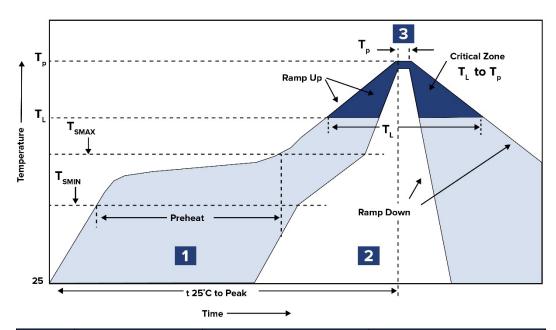


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#### **Reflow Profile**



Zone	Description	Temperature	Times		
1	Preheat	$\begin{split} T_{SMIN} \sim T_{SMAX} \\ 150^{\circ}C \sim 200^{\circ}C \end{split}$	$60 \sim 120 \text{ sec.}$		
2	Reflow	T <sub>L</sub> 217°C	$60 \sim 150 \text{ sec.}$		
3	Peak heat	Т <sub>Р</sub> 260°С	5 sec. MAX		





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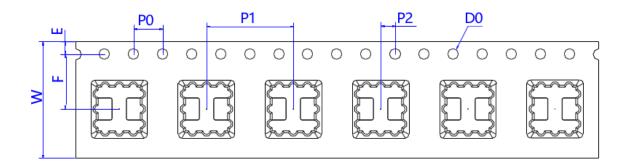
Check Inventory (>)

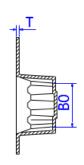


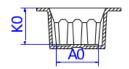
10.4 x 6.7 x 4.8 mm **RoHS/RoHS II Compliant** MSL Level = 1

### **Packaging**

Tape & Reel: 700 pcs/reel

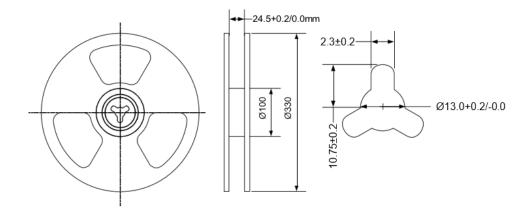






S	eries	W	E	F	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	D <sub>0</sub>	A <sub>0</sub>	Bo	Т	K <sub>0</sub>
AVR-1	M100705S	24.00 ± 0.30	1.75 ± 0.10	11.50 ± 0.10	4.0 ± 0.1	12.0 ± 0.1	2.0 ± 0.1	1.5 + 0.1/- 0.0	7.2 ± 0.10	11.0 ± 0.10	0.40 ± 0.05	5.4 ± 0.10

Dimensions: mm



Dimensions: mm

ATTENTION: Abracon LLC's products are Commercial-Off-The-Shelf (COTS, which are designed, intended and validated for use in commercial, industrial and automotive applications. The customer is responsible for testing and verifying the performance of an Abracon solution to meet their system-level requirements.

