

**AMSLA-1380** 

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13.0 x 13.0 x 8.0 mm **RoHS/RoHS II Compliant** MSL Level = 2

#### **Features**

- Shielded construction
- Soft saturation
- **High Power Density**
- Low DCR, High Efficiency
- Designed for switching frequencies between 100KHz-2MHz

### **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	Temperature Rise Current	
	0.1MHz/1V		Max	Max	Max	
Units	μH	%	mΩ	$\mathbf{A}$	A	
Symbol	L	M	DCR	Isat	Irms	
AMSLA-1380-R21	0.21	20	0.35	71	50	
AMSLA-1380-R26	0.26	20	0.35	60	50	
AMSLA-1380-R32	0.32	20	0.35	50	50	
AMSLA-1380-R44	0.44	20	0.35	35	50	

#### **Test Conditions**

Isat: DC current at which the inductance drops 20% 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:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  (on board),  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$  (with packaging), and R.H. 60 max

Operating Voltage: 40V (across inductor)

AMSLA-1380 Series is RoHS Compliant and Pb free

AMSLA-1380 is commercial grade.





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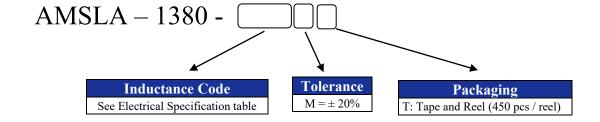


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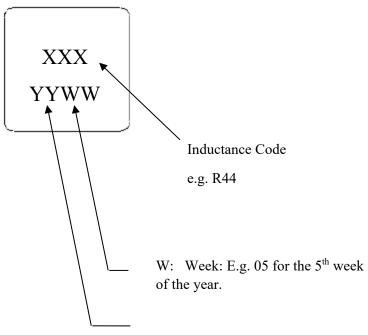


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#### **Part Number Identification**



### **Marking**



Y: Year: E.g. 21 for 2021

Marking Method = Ink Marking





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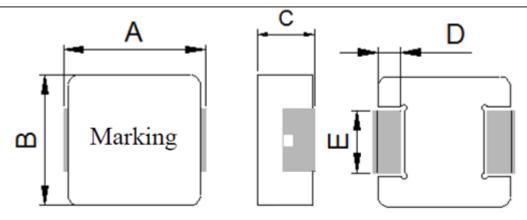


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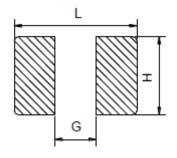


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### **Mechanical Dimensions**



Series	A	В	C	D	E
AMSLA-1380	13.0 MAX	13.0 MAX	8.0 MAX	$2.5\pm0.2$	$5.0\pm0.3$



L	G	H	
13.51 Ref.	7.11 Ref.	7.62 Ref.	

**Dimensions: mm** 





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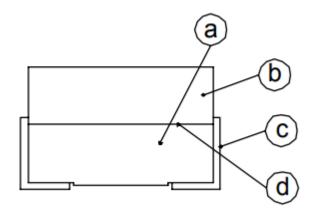


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### Materials



	Components	Material	
a	Core	Manganese-Zinc Ferrite	
b	Core	Manganese-Zinc Ferrite	
c	Electrode	Nickel-Tin	
d	Adhesive (Top)	KAA11700xx (Black)	
e	Adhesive (Bottom)	6030H (Black)	





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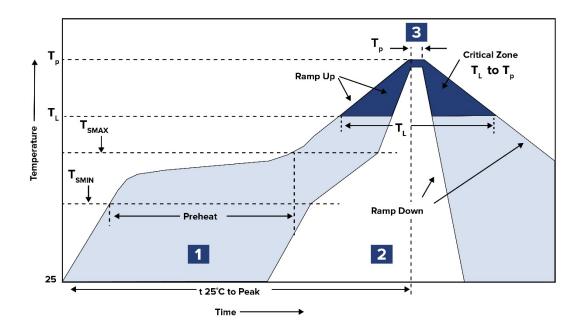


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### **Reflow Profile**



Zone	Description	Temperature	Times	
1	Preheat	$T_{SMIN} \sim T_{SMAX} \\ 150^{\circ}C \sim 200^{\circ}C$	$60 \sim 120 \text{ sec.}$	
2	Reflow	T <sub>L</sub> 217°C	60 ∼ 150 sec.	
3	Peak heat	Т <sub>Р</sub> 260°С	10 sec. MAX	





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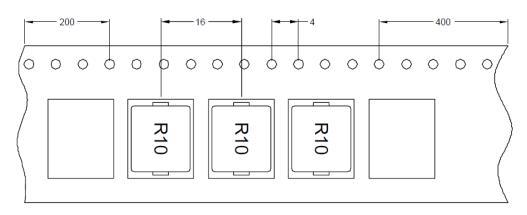
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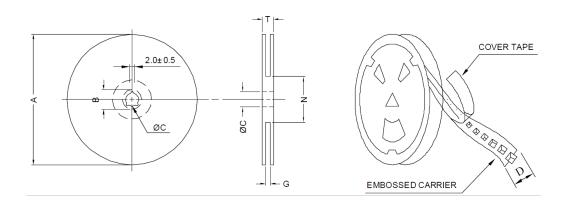


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### **Packaging**

Tape & Reel: 450 pcs/reel





A	В	C	D	G	N	T
330	$21 \pm 0.8$	13.0±0.5	24.0	26.0 Max	50.0 Min	30.4

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