

# Molded SMD Power Inductor



AMSLA-1380

Request Samples



Check Inventory



13.0 x 13.0 x 8.0 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## 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	$\mu\text{H}$	%	m $\Omega$	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 ( $\Delta T$ , approximate 40 °C) from 20°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. 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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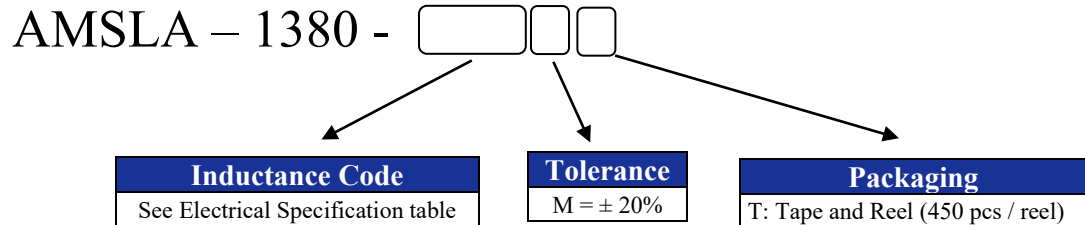


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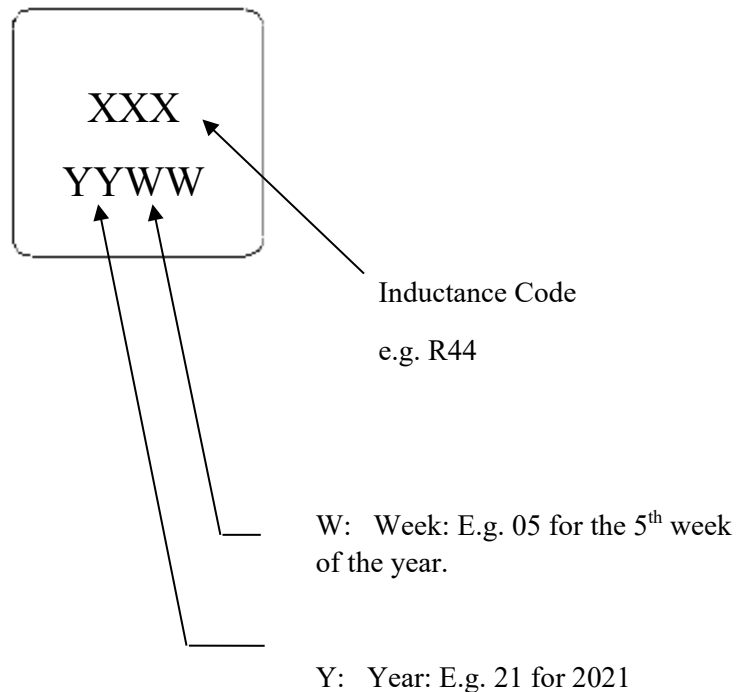


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## Part Number Identification



## Marking



Marking Method = Ink Marking



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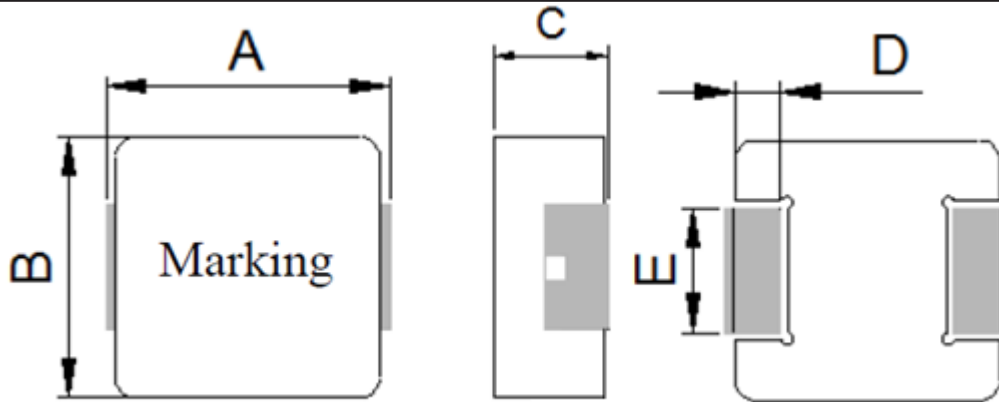


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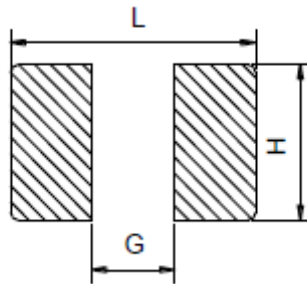


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## Mechanical Dimensions



Series	A	B	C	D	E
AMSLA-1380	13.0 MAX	13.0 MAX	8.0 MAX	2.5 ± 0.2	5.0 ± 0.3



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

Dimensions: mm

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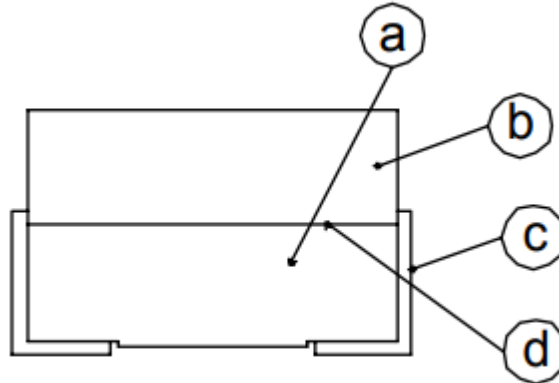


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## Materials



	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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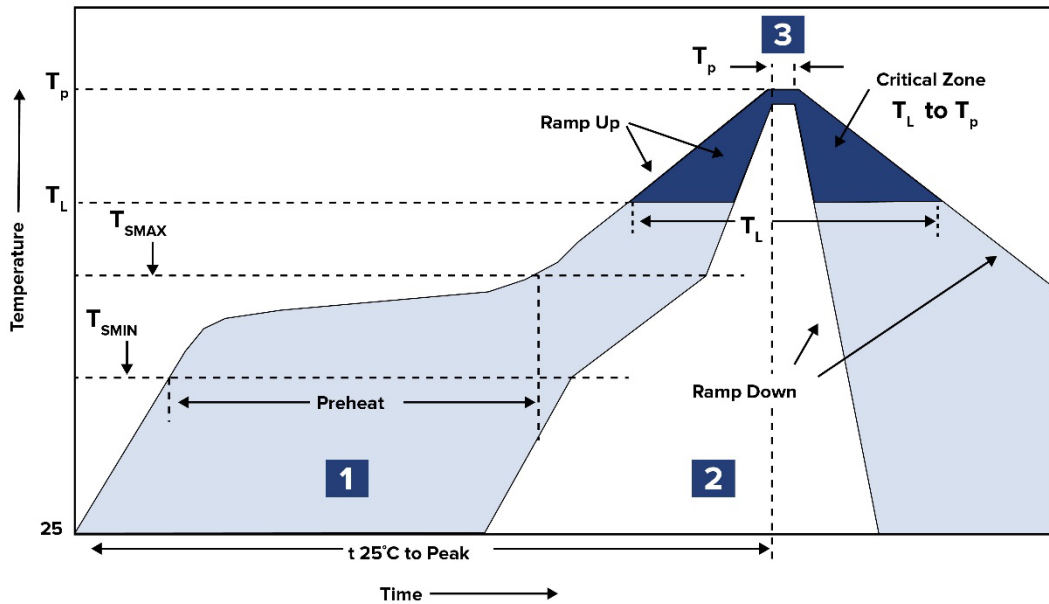


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## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C	10 sec. MAX

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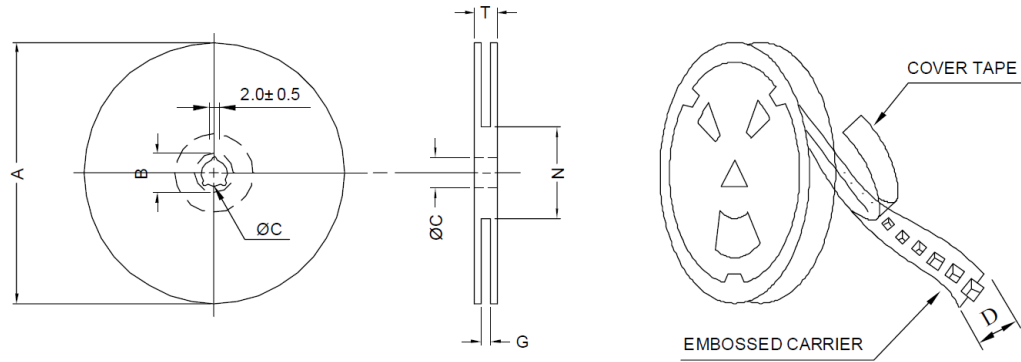
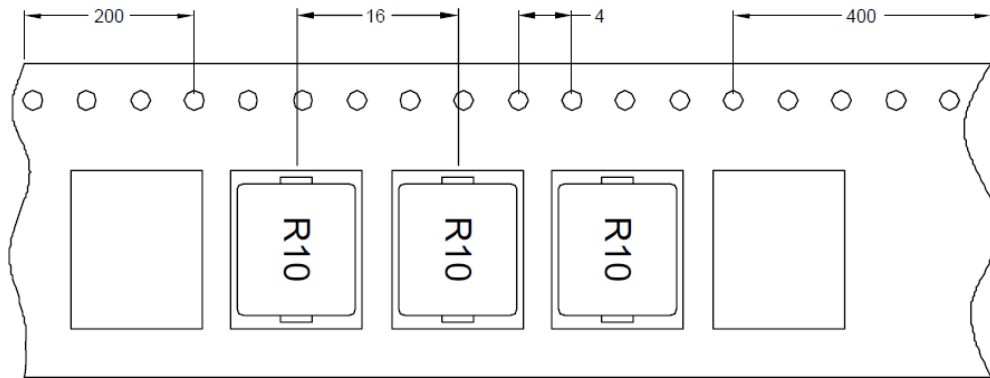
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## Packaging

**Tape & Reel: 450 pcs/reel**



A	B	C	D	G	N	T
330	21 ±0.8	13.0±0.5	24.0	26.0 Max	50.0 Min	30.4

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