

# Molded SMD Power Inductor



ASPIAIG-Q1513

Request Samples



Check Inventory



17.5 x 16.5 x 12.7 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)
- Shielded construction
- Soft saturation
- Low DCR, High Efficiency

## Applications

- Body electronics and comfort system
- Infotainment and entertainment
- Electric vehicles
- 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/0.1V		Max	Max	Max
Units	μH	%	mΩ	A	A
Symbol	L		DCR	Isat	Irms
ASPIAIG-Q1513-4R7	4.70	M	3.30	40.0	31.0
ASPIAIG-Q1513-5R6	5.60	M	3.90	35.0	29.0
ASPIAIG-Q1513-6R8	6.80	M	4.20	32.0	27.0
ASPIAIG-Q1513-8R2	8.20	M	5.70	29.0	26.0
ASPIAIG-Q1513-100	10.0	M	7.00	27.0	25.0
ASPIAIG-Q1513-150	15.0	M	7.50	21.0	22.0
ASPIAIG-Q1513-220	22.0	M	13.86	19.0	17.0
ASPIAIG-Q1513-330	33.0	M	22.20	16.0	14.0

## Test Conditions

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

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , approximate 40 °C) from 20°C ambient

**Operating Temperature:** -55°C ~ +155°C (including self-temperature rise)

**Storage Condition:** -55°C ~ +155°C (PCB mounted) and R.H. 60 max

**Operating Voltage:** 40V (across inductor)

ASPIAIG-Q1513 Series is **RoHS Compliant and Pb free**

ASPIAIG-Q1513 is **AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)**

MSL level: 1



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## Part Number Identification

ASPIAIG – Q1513 - [ ] [ ] - [ ]

### Inductance Code

See Electrical Specification table

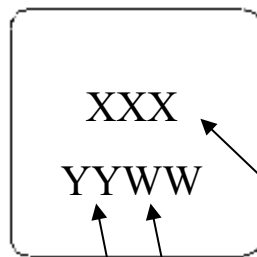
### Tolerance

M = ± 20%

### Packaging

T: Tape and Reel (100 pcs / reel)

## Marking



Inductance Code

e.g. 6R8

W: Week: E.g. 05 for the 5<sup>th</sup> week of the year.

Y: Year: E.g. 20 for 2020

Marking Method = Ink Marking



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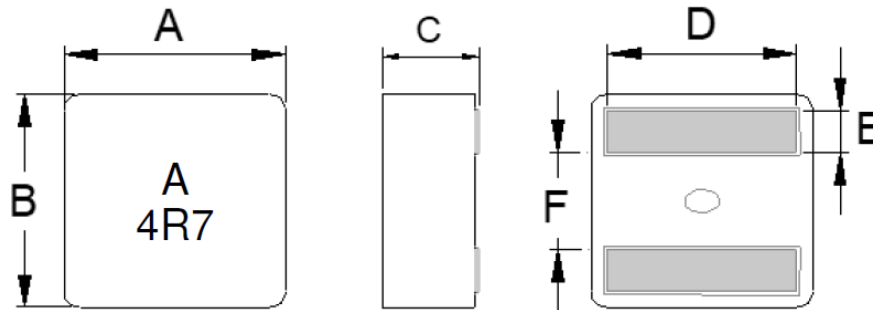


Check Inventory

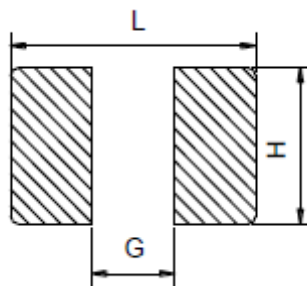


17.5 x 16.5 x 12.7 mm  
**RoHS/RoHS II Compliant**  
 MSL Level = 1

## Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q1513	17.5 ± 0.3	16.5 ± 0.3	12.7 ± 0.3	13.2 ± 0.5	3.2 ± 0.2	7.0 ± 0.2



L	G	H
15.0 Ref.	6.0 Ref.	15.0 Ref.

Dimensions: mm



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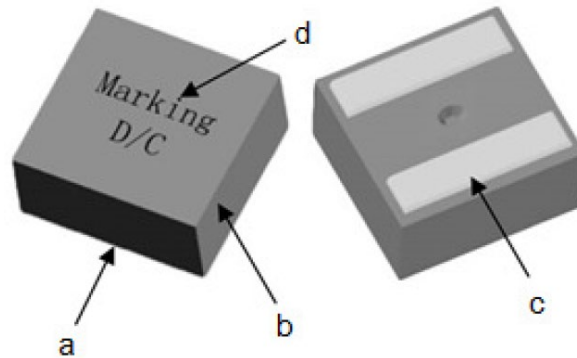


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17.5 x 16.5 x 12.7 mm  
RoHS/RoHS II Compliant  
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## Materials



	Components	Material
a	Core	Alloy powder
b	Wire	220 deg. C Flat Wire
c	Solder	100% Pb free solder
d	Ink	Halogen-free ketone

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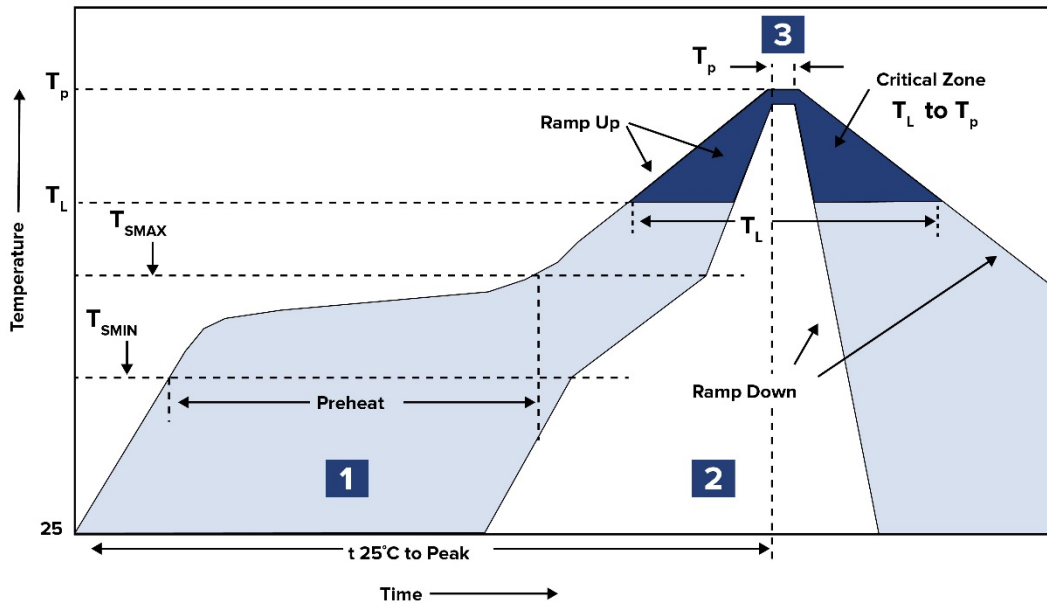


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## Reflow Profile



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	< 30 sec.

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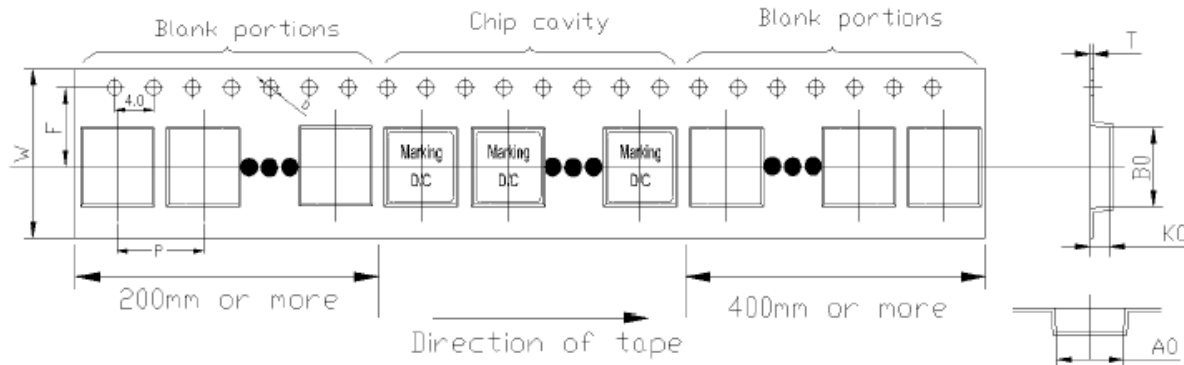
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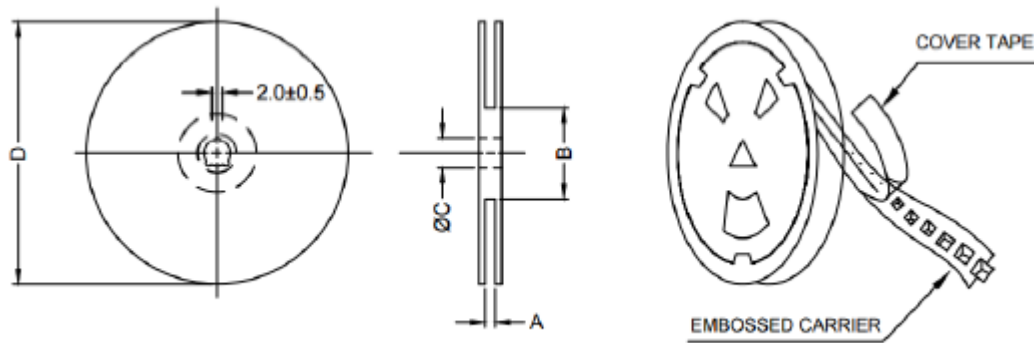
17.5 x 16.5 x 12.7 mm  
**RoHS/RoHS II Compliant**  
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## Packaging

**Tape & Reel: 100 pcs/reel**



W	F	P	D	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>
32.0±0.3	14.2±0.1	24.0±0.1	1.5±0.1	18.0±0.1	17.0±0.1	0.5±0.05	13.6±0.1



A	B	C	D
34.4+2/-0	100 ± 2	13.0+0.5/-0.2	330

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