

# Molded SMD Power Inductor



**ASPIAIG-QLR5050**

Request Samples



Check Inventory



6.0 x 5.7 x 4.8 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		Typ/Max	Typ/Max	Max
Units	μH	%	mΩ	A	A
Symbol	L	M	DCR	Isat	Irms
ASPIAIG-QLR5050-5R6	5.6	M	22.0 / 24.2	7.2	7.2
ASPIAIG-QLR5050-6R8	6.8	M	26.0 / 28.6	6.6	6.4
ASPIAIG-QLR5050-8R2	8.2	M	29.5 / 32.5	6.1	6.1
ASPIAIG-QLR5050-100	10	M	39.0 / 43.0	5.4	5.0

## Test Conditions

**Isat:** DC current at which the inductance drops 20% from its value.

**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 and R.H. 60 max

**Operating Voltage:** 15V (across inductor)

**ASPIAIG-QLR5050 Series is RoHS Compliant and Pb free**

**ASPIAIG-QLR5050 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)**

**MSL level: 1**



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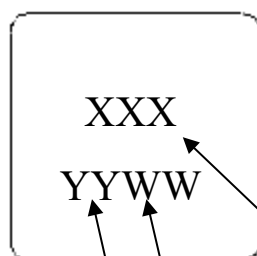


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## Marking



Inductance Code

e.g. 1R0

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**

## Part Identification

ASPIAIG-QLR5030 -   -

**Inductance Code**

See Electrical Specification table

**Tolerance**

M =  $\pm 20\%$

**Packaging**

T: Tape and Reel (1.5kpcs / reel)



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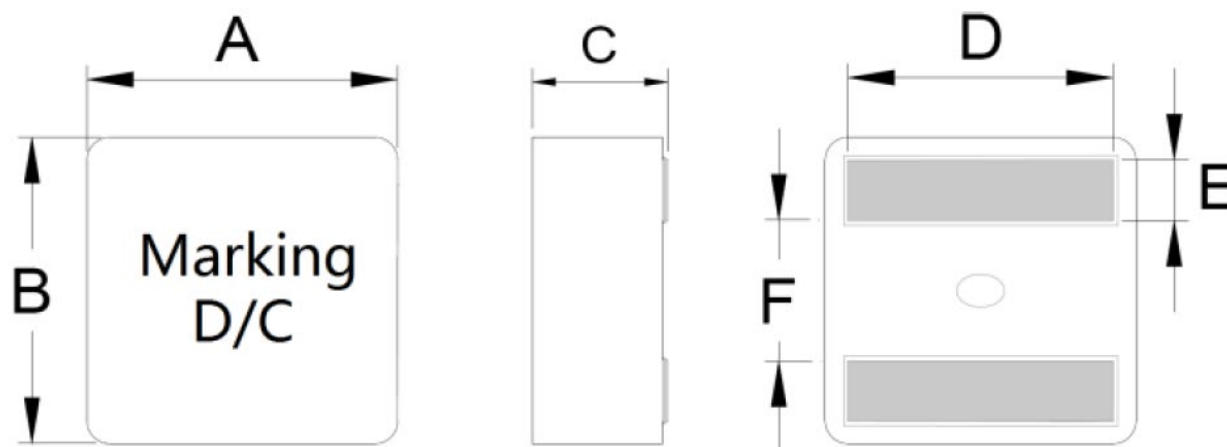
**ASPIAIG-QLR5050**

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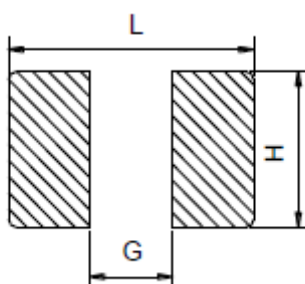
6.0 x 5.7 x 4.8 mm  
**RoHS/RoHS II Compliant**  
MSL Level = 1

## Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q5030	6.0 ± 0.2	5.7 ± 0.2	4.8 ± 0.2	4.3 ± 0.3	1.1 ± 0.2	2.3 ± 0.25

## Recommended Land Pattern



L Typ.	G Typ.	H Typ.
4.5	2.0	4.7

**Dimensions: mm**



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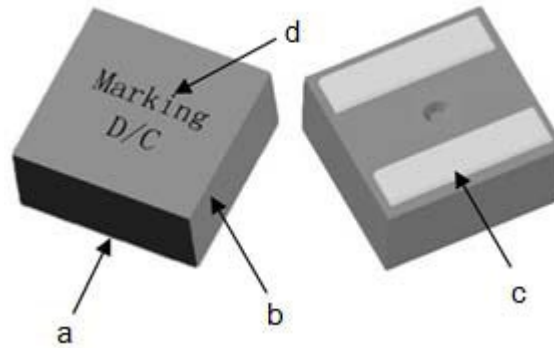


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**6.0 x 5.7 x 4.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## 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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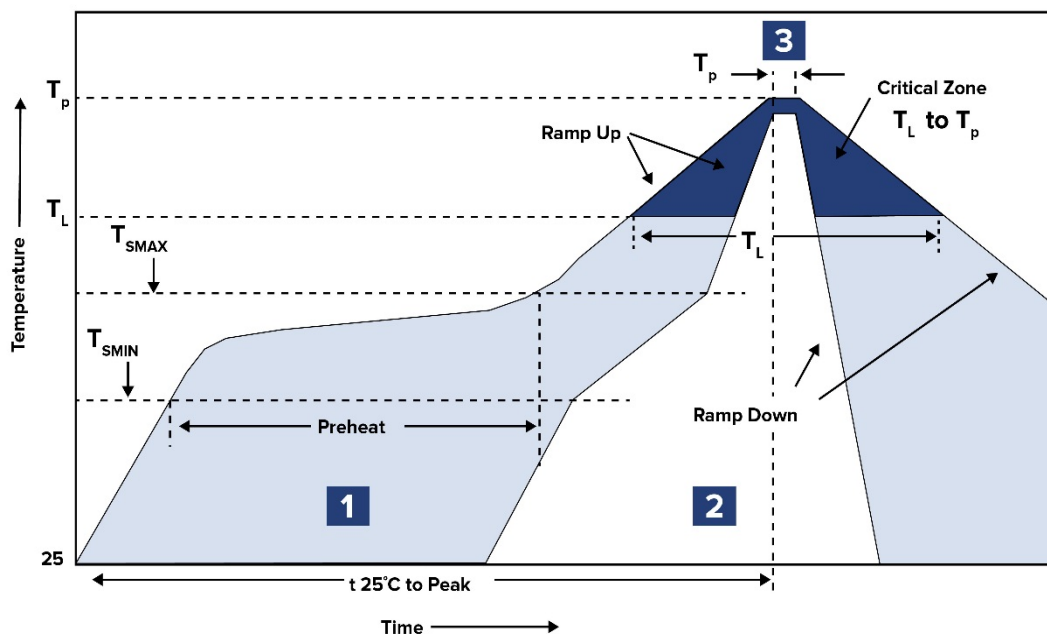


Check Inventory



6.0 x 5.7 x 4.8 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 260°C±5°C	10 sec. MAX

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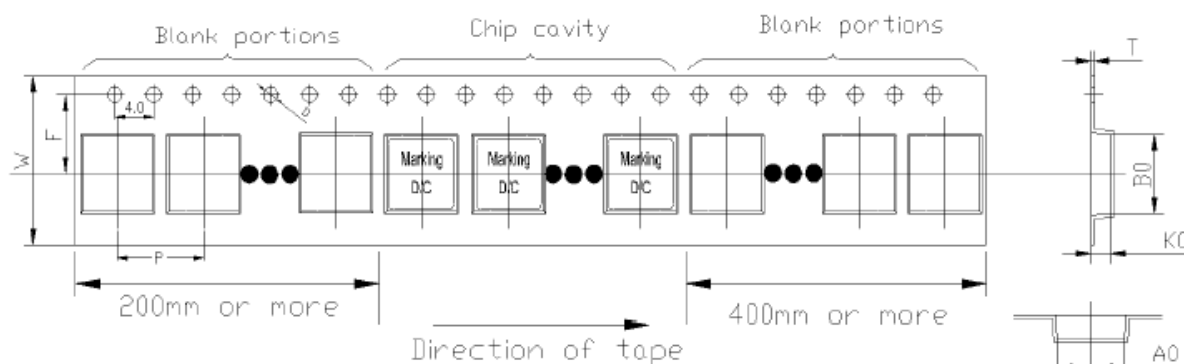
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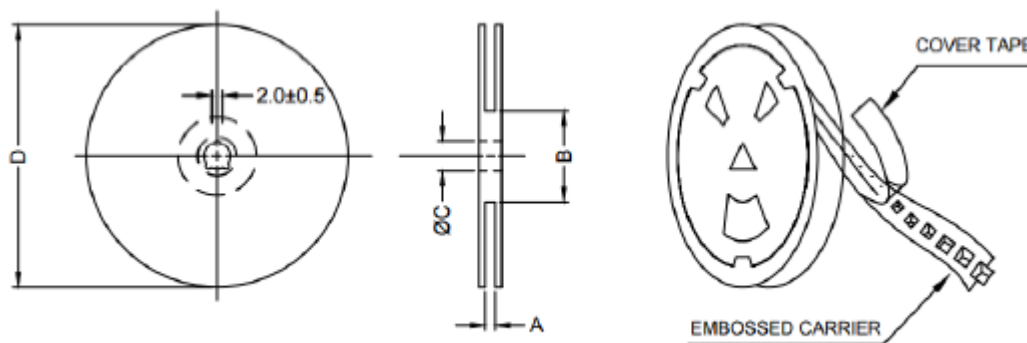
**6.0 x 5.7 x 4.8 mm**  
**RoHS/RoHS II Compliant**  
**MSL Level = 1**

## Packaging

**Tape & Reel: 1500 pcs/reel)**



W	F	P	D	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>
16.0±0.3	7.5±0.1	8.0±0.1	1.5±0.1	6.4±0.1	6.1 ±0.1	0.35±0.05	5.3±0.1



A	B	C	D
16.4+2/-0	100 ± 2	13.0+0.5/-0.2	330

**Dimension: mm**

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