Molded SMD Power Inductor



ASPIAIG-Q5030

Request Samples | Check Inventory

6.0 x 5.7 x 2.9 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	Max	Max
Units	µH	%	mΩ	A	A
Symbol	L	M	DCR	Isat	Irms
ASPIAIG-Q5030-R15	0.15	M	2.10 / 2.31	32.5	22.2
ASPIAIG-Q5030-R16	0.16	M	2.12 / 2.33	32.0	22.2
ASPIAIG-Q5030-R28	0.28	M	3.00 / 3.30	28.0	19.0
ASPIAIG-Q5030-R33	0.33	M	3.20 / 3.52	26.0	19.2
ASPIAIG-Q5030-R47	0.47	M	3.75 / 4.13	24.0	18.4
ASPIAIG-Q5030-R56	0.56	M	4.05 / 4.52	20.2	17.7
ASPIAIG-Q5030-R60	0.60	M	4.11 / 4.52	20.0	17.7
ASPIAIG-Q5030-R80	0.80	M	5.14 / 5.65	18.0	13.1
ASPIAIG-Q5030-R82	0.82	M	5.25 / 5.78	17.6	12.9
ASPIAIG-Q5030-1R0	1.00	M	6.90 / 7.60	14.3	12.2
ASPIAIG-Q5030-1R2	1.20	M	8.80 / 9.70	13.5	11.0
ASPIAIG-Q5030-1R5	1.50	M	10.1 / 11.20	12.5	10.5
ASPIAIG-Q5030-1R8	1.80	M	11.5 / 12.70	11.3	10.1
ASPIAIG-Q5030-2R2	2.20	M	13.2 / 14.50	9.0	9.70
ASPIAIG-Q5030-3R3	3.30	M	21.0 / 23.10	8.7	8.10
ASPIAIG-Q5030-4R7	4.70	M	33.0 / 36.3	7.0	5.90

Test Conditions

Isat: DC current at which the inductance drops 20% from its value.
Irms: DC current that causes the temperature rise (ΔT, 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-Q5030 Series is RoHS Compliant and Pb free
ASPIAIG-Q5030 is AEC-Q200 Grade 0 qualified (-55˚C ~ +155˚C)
MSL level: 1

ABRACON

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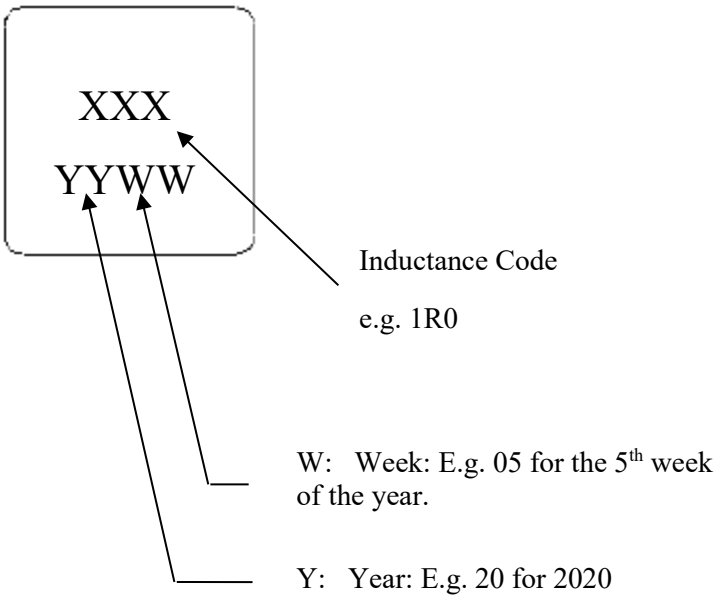


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Marking



Marking Method: Ink

Part Identification

ASPIAIG- Q5030 - [ ][ ] - [ ]

Inductance Code	Tolerance	Packaging
See Electrical Specification table	M = ± 20%	T: Tape and Reel (2kpcs / reel)

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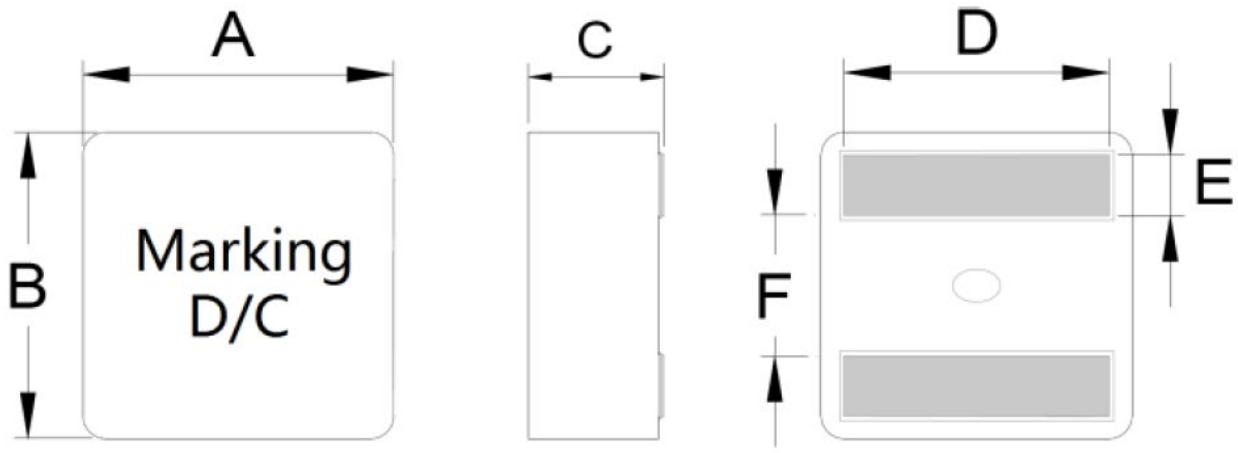


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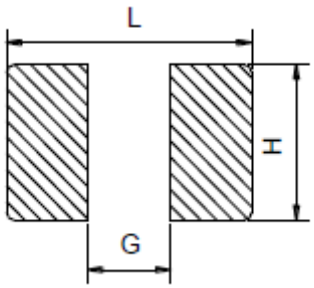
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Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q5030	6.0 ± 0.2	5.7 ± 0.2	2.9 ± 0.2	4.3 ± 0.3	1.1 ± 0.2	2.3 ± 0.25

Recommended Land Pattern



L	G	H
4.5 Ref.	2.0 Ref.	4.7 Ref.

Dimensions: mm

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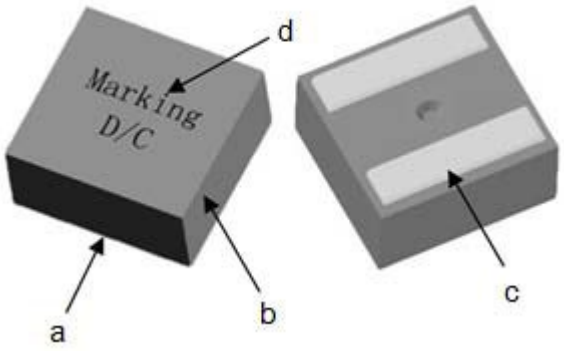


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Materials



	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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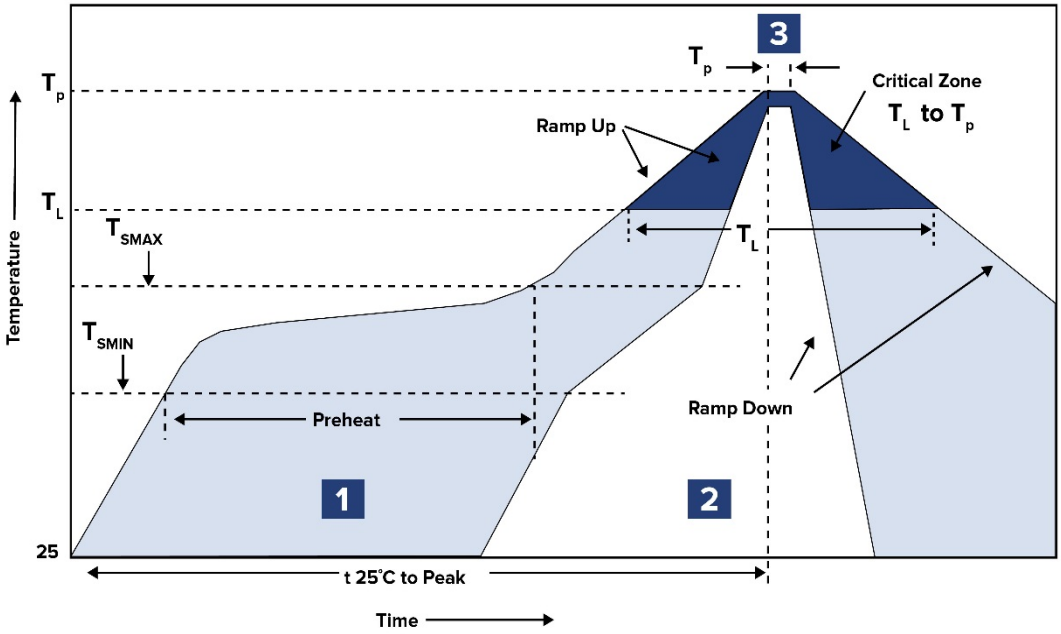


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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ 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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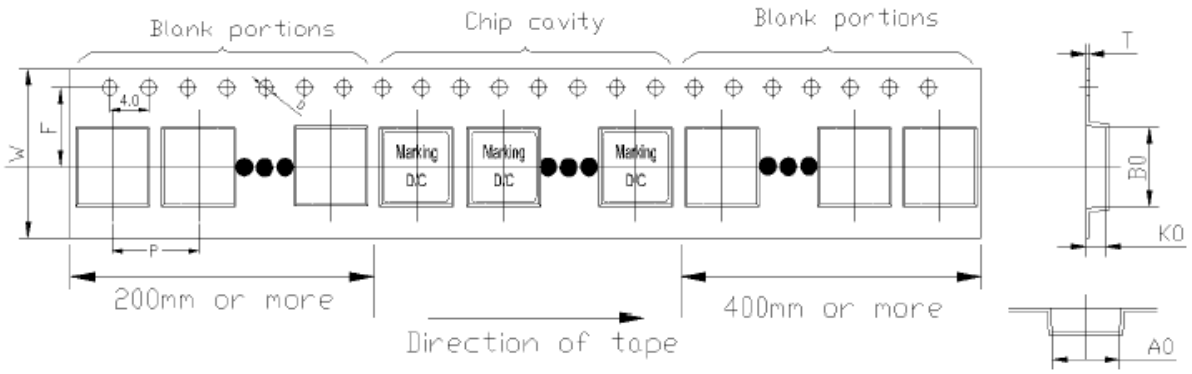
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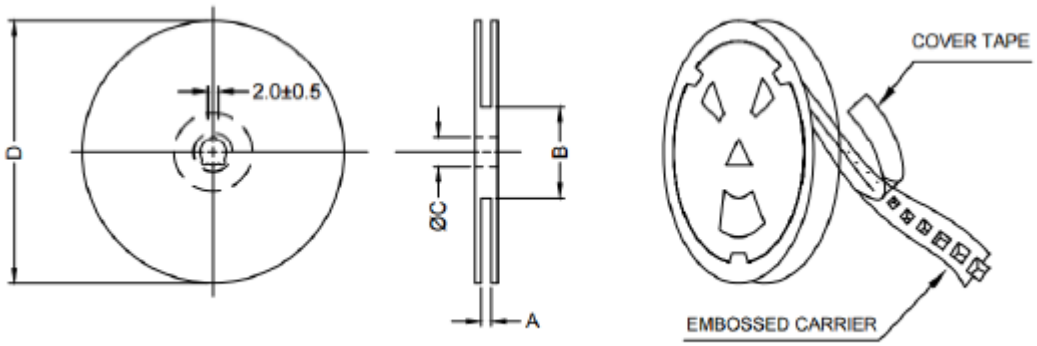
6.0 x 5.7 x 2.9 mm
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Packaging

Tape & Reel: 2000 pcs/reel)



W	F	P	D	A_0	B_0	T	K_0
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	3.3±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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