

Molded SMD Power Inductor



ASPIAIG-Q7030

Request Samples



Check Inventory



7.8 x 7.6 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	mm
Symbol	L	M	DCR	Isat	Irms	±0.3
ASPIAIG-Q7030-R60	0.60	M	2.90 / 3.20	32.0	23.0	6.6
ASPIAIG-Q7030-1R0	1.00	M	4.55 / 5.00	28.0	21.8	6.6
ASPIAIG-Q7030-1R5	1.50	M	7.50 / 8.25	23.5	15.3	6.6
ASPIAIG-Q7030-2R2	2.20	M	12.4 / 13.7	17.0	13.0	6.2
ASPIAIG-Q7030-2R7	2.70	M	14.0 / 15.4	13.5	11.4	6.2
ASPIAIG-Q7030-3R3	3.30	M	16.3 / 18.0	13.0	10.0	6.2
ASPIAIG-Q7030-4R7	4.70	M	24.2 / 26.7	12.2	9.00	6.2
ASPIAIG-Q7030-5R6	5.60	M	30.1 / 33.2	11.5	7.30	6.2
ASPIAIG-Q7030-6R8	6.80	M	38.6 / 42.5	11.0	6.80	6.2
ASPIAIG-Q7030-8R2	8.20	M	44.3 / 48.7	9.0	5.90	6.2

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 and R.H. 60 max

Operating Voltage: 40V (across inductor)

ASPIAIG-Q7030 Series is RoHS Compliant and Pb free

ASPIAIG-Q7030 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)

MSL level: 1

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Part Identification

ASPIAIG- Q7030 - -

Inductance Code

See Electrical Specification table

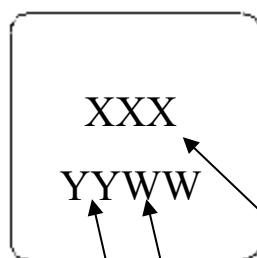
Tolerance

M = $\pm 20\%$

Packaging

T: Tape and Reel (1.5kpcs / reel)

Marking



Inductance Code

e.g. 1R0

W: Week: E.g. 05 for the 5th week of the year.

Y: Year: E.g. 20 for 2020

Marking Method: Ink

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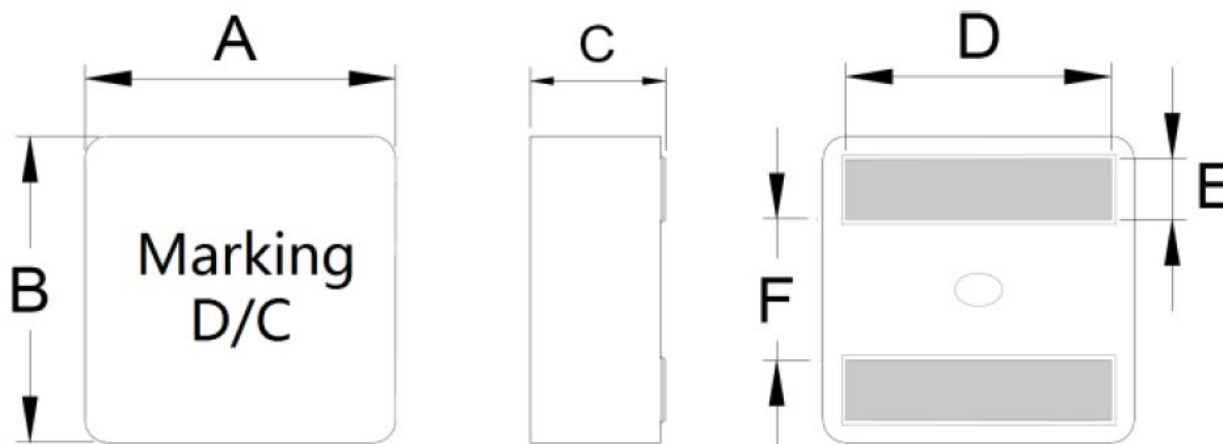


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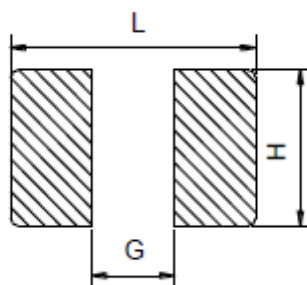
7.8 x 7.6 x 2.9 mm
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Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q7030	7.8 ± 0.2	7.6 ± 0.2	2.9 ± 0.2	See column D in Spec Table	1.75 ± 0.2	3.15 ± 0.25

Recommended Land Pattern



L	G	H
7.4 Ref.	2.8 Ref.	7.2 Ref.

Dimension: mm

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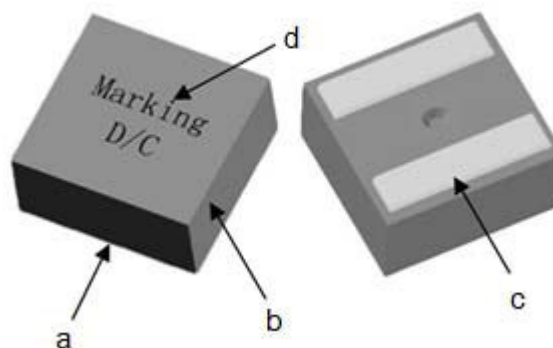


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7.8 x 7.6 x 2.9 mm
RoHS/RoHS II Compliant
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Materials



	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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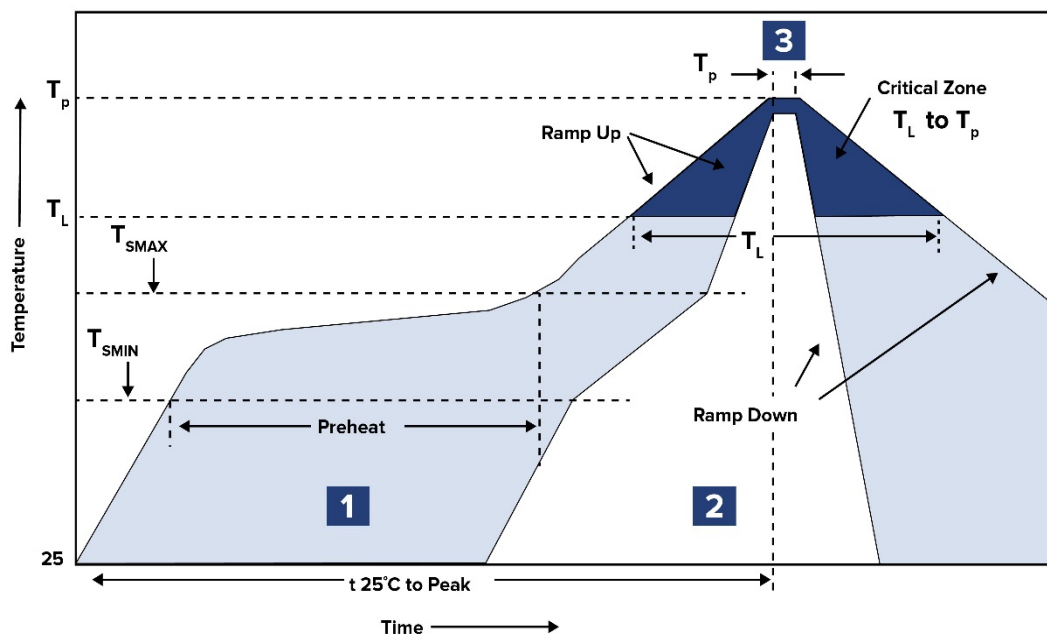


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7.8 x 7.6 x 2.9 mm
RoHS/RoHS II Compliant
MSL Level = 1

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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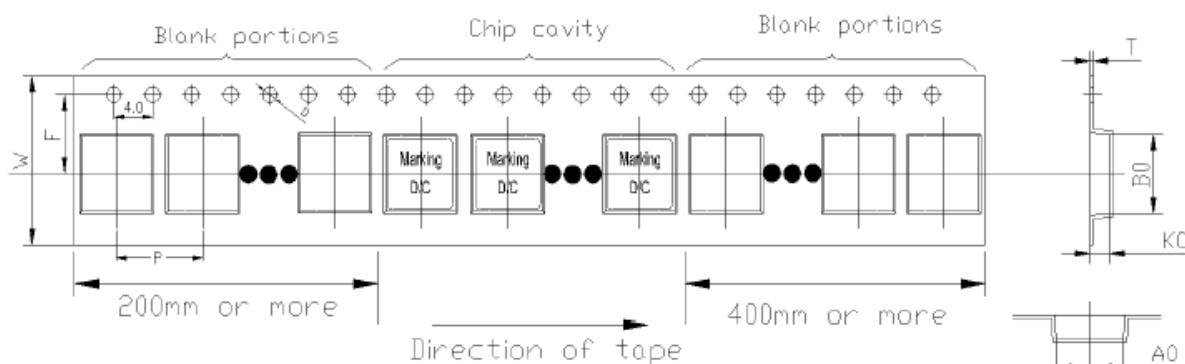
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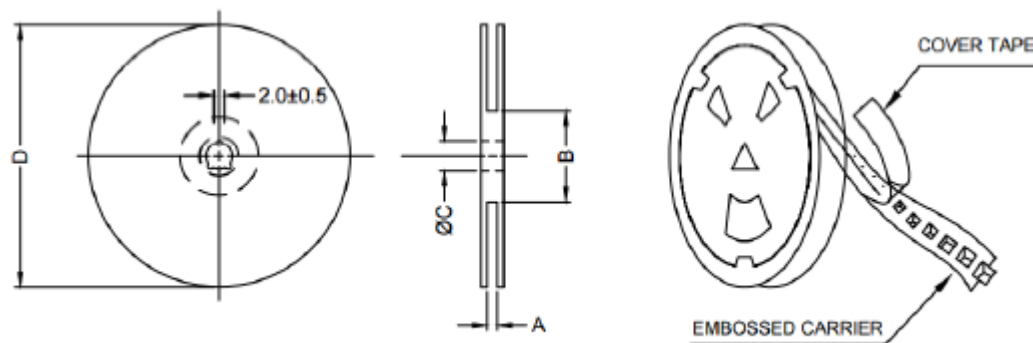
7.8 x 7.6 x 2.9 mm
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Packaging

Tape & Reel: 1500 pcs/reel)



W	F	P	D	A ₀	B ₀	T	K ₀
16.0±0.3	7.5±0.1	12.0±0.1	1.5±0.1	8.2±0.1	8.0 ±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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