

Molded SMD Power Inductor



ASPIAIG-Q7050

Request Samples



Check Inventory



8.4 x 8.0 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		Max	Max	Max
Units	μH	%	mΩ	A	A
Symbol	L		DCR	Isat	Irms
ASPIAIG-Q7050 – 2R2	2.2	20	6.4	17.0	14.0
ASPIAIG-Q7050 – 3R3	3.3	20	11.4	14.0	13.0
ASPIAIG-Q7050 – 4R7	4.7	20	15.4	13.0	11.0
ASPIAIG-Q7050 – 5R6	5.6	20	17.2	11.0	7.0

Test Conditions

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

Irms: DC current that causes the temperature rise (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-Q7050 Series is RoHS Compliant and Pb free

ASPIAIG-Q7050 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)

MSL level: 1

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Part Number Identification

ASPIAIG – Q7050 - [] [] - []

Inductance Code

See Electrical Specification table

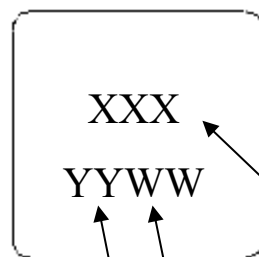
Tolerance

M = $\pm 20\%$

Packaging

T: Tape and Reel (800 pcs / reel)

Marking



Inductance Code

e.g. 6R8

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

Y: Year: E.g. 20 for 2020

Marking Method = Ink Marking

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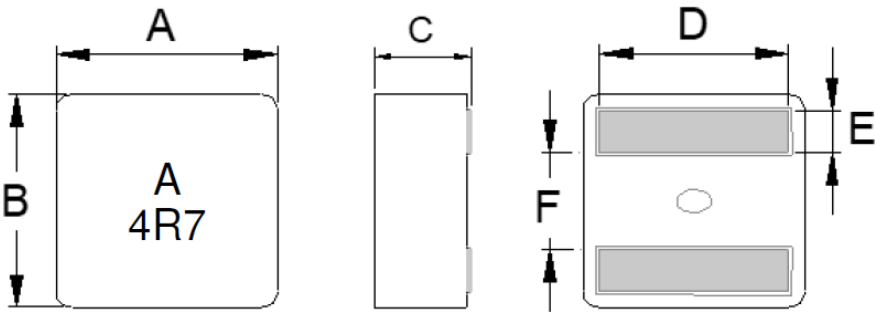


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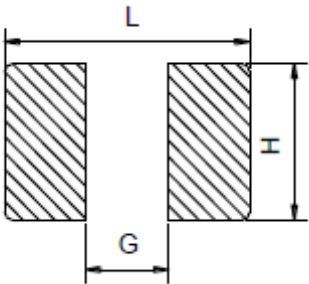


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Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q7050	8.4 ± 0.3	8.0 ± 0.3	4.8 ± 0.3	6.2 ± 0.3	1.75 ± 0.2	3.15 ± 0.25



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

Dimensions: mm

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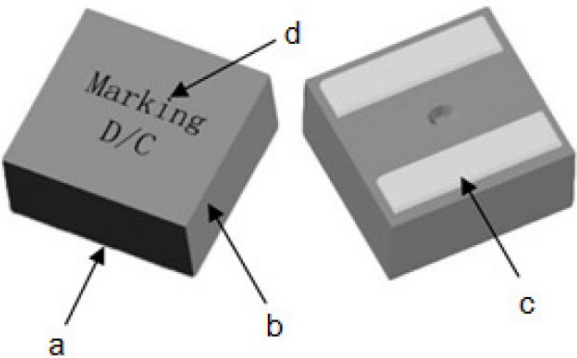


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8.4 x 8.0 x 4.8 mm
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Materials



	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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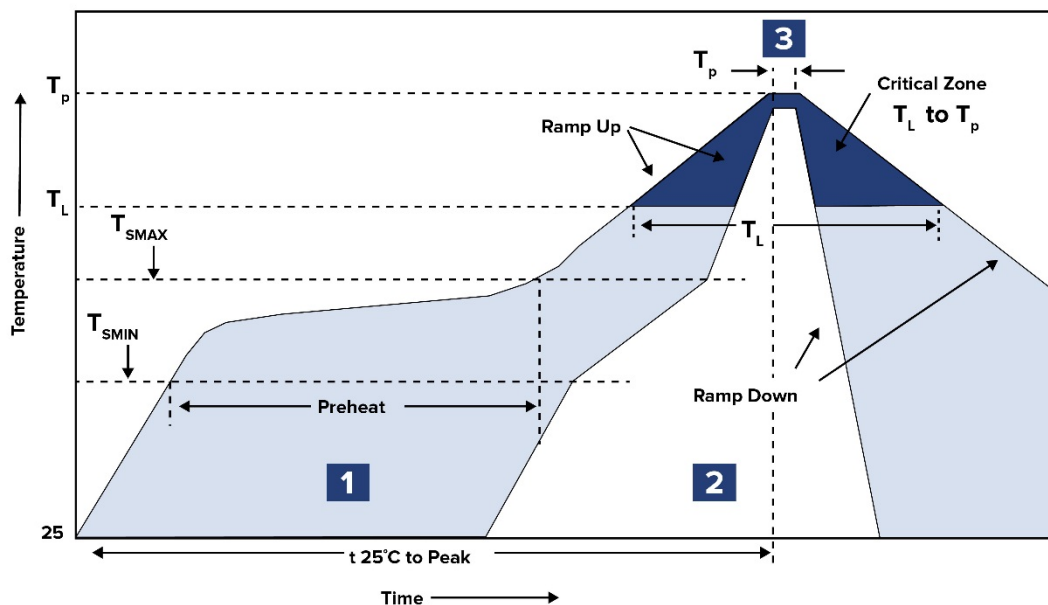


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8.4 x 8.0 x 4.8 mm
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Reflow Profile



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	10 sec. MAX

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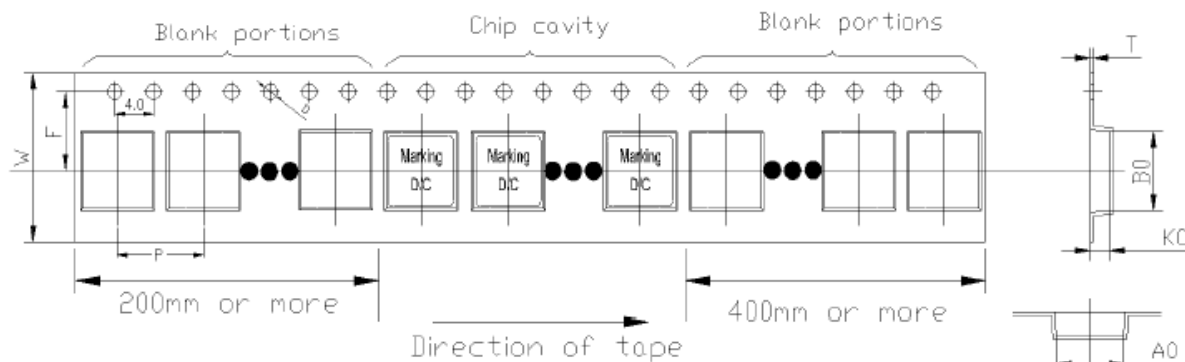
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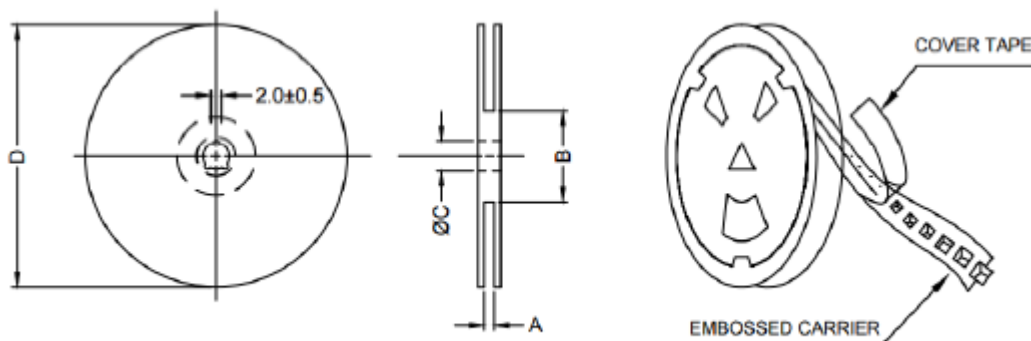
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Packaging

Tape & Reel: 800 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	8.8±0.1	8.4 ±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

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