

ASPIAIG-Q1060-R68M-T Datasheet

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DiGi Electronics Part Number	ASPIAIG-Q1060-R68M-T-DG
Manufacturer	Abracon LLC
Manufacturer Product Number	ASPIAIG-Q1060-R68M-T
Description	FIXED IND 680NH 34A 1.5MOHM SMD
Detailed Description	680 nH Shielded Molded Inductor 34 A 1.5mOhm Max Nonstandard



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Purchase and inquiry

Manufacturer Product Number:

ASPIAIG-Q1060-R68M-T

Series:

ASPIAIG-Q1060

Type:

Molded

Inductance:

680 nH

Current Rating (Amps):

34 A

Shielding:

Shielded

Q @ Freq:

-

Ratings:

AEC-Q200

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.236" (6.00mm)

Manufacturer:

Abracon LLC

Product Status:

Active

Material - Core:

Alloy Powder

Tolerance:

±20%

Current - Saturation (Isat):

50A

DC Resistance (DCR):

1.5mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-55°C ~ 155°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.469" L x 0.433" W (11.90mm x 11.00mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.4000

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Molded SMD Power Inductor


ASPIAIG-Q1060

Request Samples



Check Inventory


11.9 x 11.0 x 5.7 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	Electrode Length
	0.1MHz/0.1V		Max	Max	Max	± 0.5
Units	μH	%	mΩ	A	A	mm
Symbol	L		DCR	Isat	Irms	D
ASPIAIG-Q1060-R68	0.68	M	1.50	50.0	34.0	9.5
ASPIAIG-Q1060-1R0	1.00	M	2.32	44.0	28.5	9.0
ASPIAIG-Q1060-1R2	1.20	M	2.64	40.0	26.5	9.0
ASPIAIG-Q1060-1R5	1.50	M	3.30	36.0	24.5	9.0
ASPIAIG-Q1060-2R2	2.20	M	4.84	30.0	20.0	9.0
ASPIAIG-Q1060-3R3	3.30	M	7.70	25.0	16.8	9.0
ASPIAIG-Q1060-4R7	4.70	M	10.72	22.0	14.0	9.0
ASPIAIG-Q1060-5R6	5.60	M	11.90	17.0	12.0	8.8
ASPIAIG-Q1060-6R8	6.80	M	13.0	15.5	10.5	8.8
ASPIAIG-Q1060-8R2	8.20	M	16.5	14.0	9.5	8.8
ASPIAIG-Q1060-100	10.0	M	18.2	13.0	9.0	8.8

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-Q1060 Series is RoHS Compliant and Pb free

ASPIAIG-Q1060 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C ambient)

MSL level: 1



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Molded SMD Power Inductor



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RoHS/RoHS II Compliant
 MSL Level = 1

Part Number Identification

ASPIAIG – Q1060 - [] [] - []

Inductance Code

See Electrical Specification table

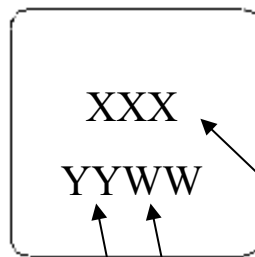
Tolerance

M = $\pm 20\%$

Packaging

T: Tape and Reel (500 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

Molded SMD Power Inductor



ASPIAIG-Q1060

Request Samples

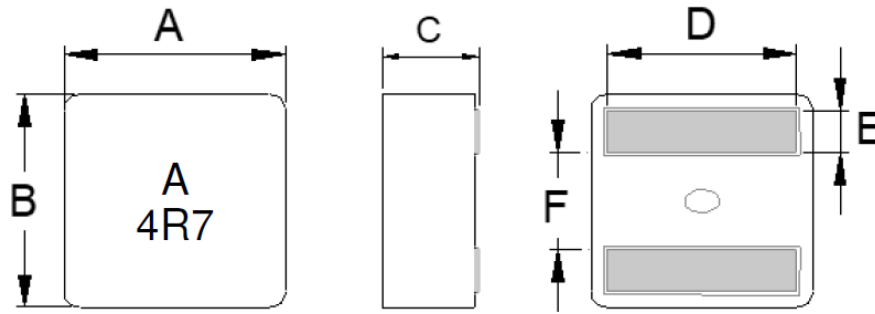


Check Inventory

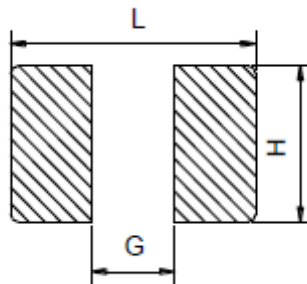


11.9 x 11.0 x 5.7 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q1060	11.9 ± 0.3	11.0 ± 0.3	5.7 ± 0.3	See Electrical Specs table	2.4 ± 0.2	4.5 ± 0.3



L	G	H
10.5 Ref.	3.7 Ref.	11.0 Ref.

Dimensions: mm

Molded SMD Power Inductor



ASPIAIG-Q1060

Request Samples

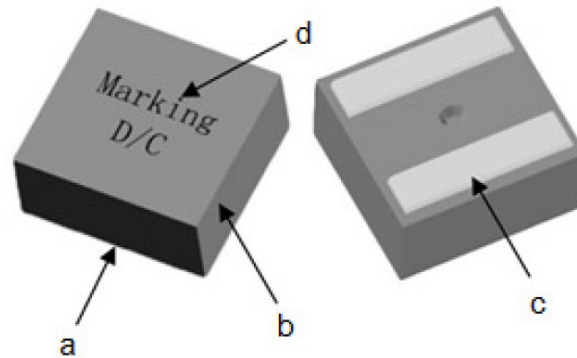


Check Inventory



11.9 x 11.0 x 5.7 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

Molded SMD Power Inductor


ASPIAIG-Q1060

Request Samples

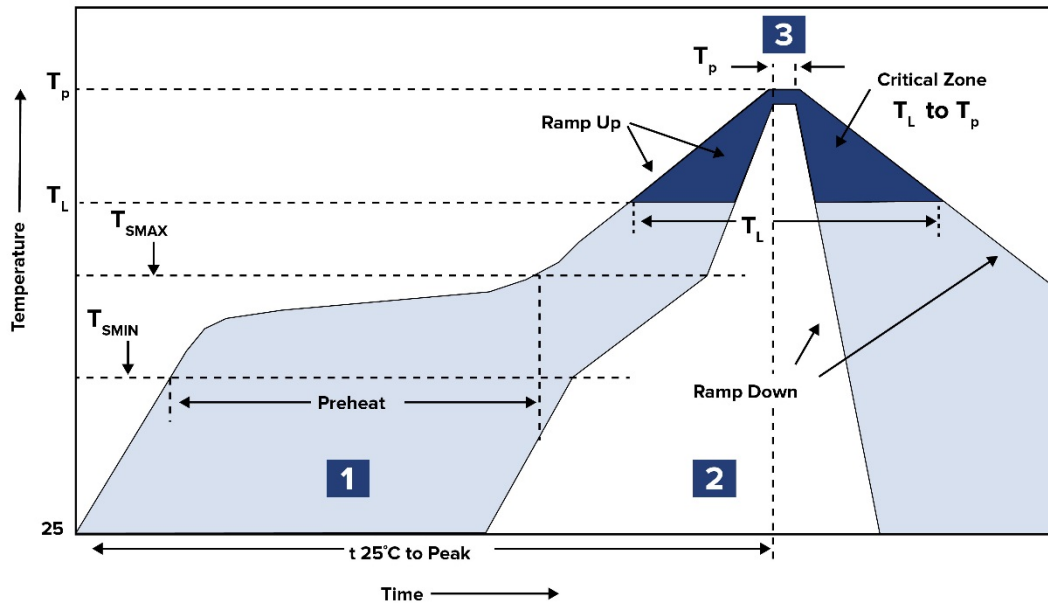


Check Inventory



11.9 x 11.0 x 5.7 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	10 sec. MAX

Molded SMD Power Inductor



ASPIAIG-Q1060

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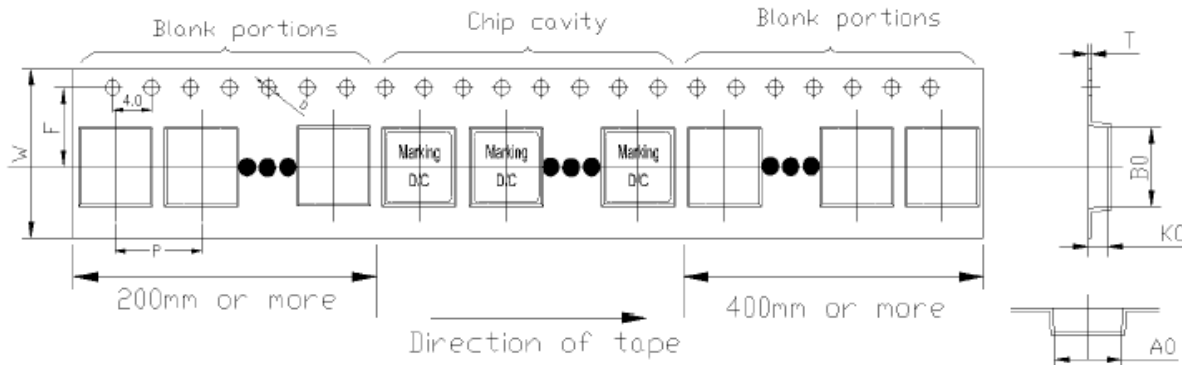
Check Inventory



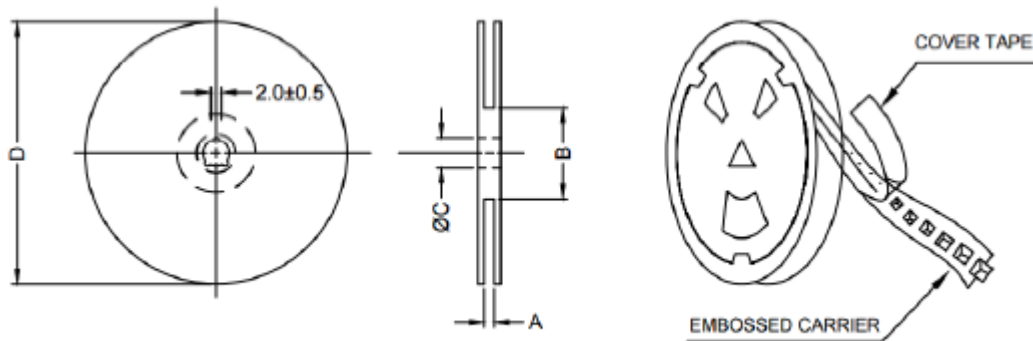
11.9 x 11.0 x 5.7 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 500 pcs/reel



W	F	P	D	A ₀	B ₀	T	K ₀
24.0 ± 0.3	11.5 ± 0.1	16.0 ± 0.1	1.5 ± 0.1	12.4 ± 0.1	11.5 ± 0.1	0.35 ± 0.05	6.3 ± 0.1



A	B	C	D
24.4 + 2/-0	100 ± 2	13.0 + 0.5/-0.2	330

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