

Molded SMD Power Inductor



ASPIAIG-Q1010

Request Samples



Check Inventory



11.9 x 11.0 x 9.7 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 | Typ | Typ | ±5% |
| Units | µH | % | mΩ | A | A | mm |
| Symbol | L | | DCR (Max) | Isat | Irms | E |
| ASPIAIG-Q1010-2R2 | 2.2 | M | 2.8 | 29.0 | 32.0 | 9.3 |
| ASPIAIG-Q1010-3R3 | 3.3 | M | 4.10 | 23.4 | 25.0 | 9.3 |
| ASPIAIG-Q1010-4R7 | 4.7 | M | 5.70 | 21.4 | 24.0 | 9.3 |
| ASPIAIG-Q1010-5R6 | 5.6 | M | 7.20 | 19.6 | 21.2 | 9.3 |
| ASPIAIG-Q1010-6R8 | 6.8 | M | 8.90 | 18.5 | 18.5 | 9.0 |
| ASPIAIG-Q1010-8R2 | 8.2 | M | 12.40 | 16.3 | 17.1 | 9.0 |
| ASPIAIG-Q1010-100 | 10 | M | 13.75 | 14.6 | 15.5 | 9.0 |
| ASPIAIG-Q1010-150 | 15 | M | 19.30 | 12.5 | 13.8 | 9.0 |

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-Q1030 Series is **RoHS Compliant and Pb free**

ASPIAIG-Q1030 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)

MSL level: 1



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 02-08-21

ABRACON IS
ISO9001-2015
CERTIFIED

Molded SMD Power Inductor



ASPIAIG-Q1010

Request Samples

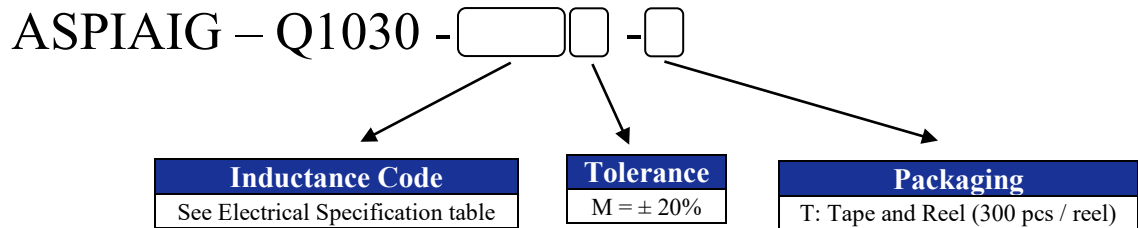


Check Inventory

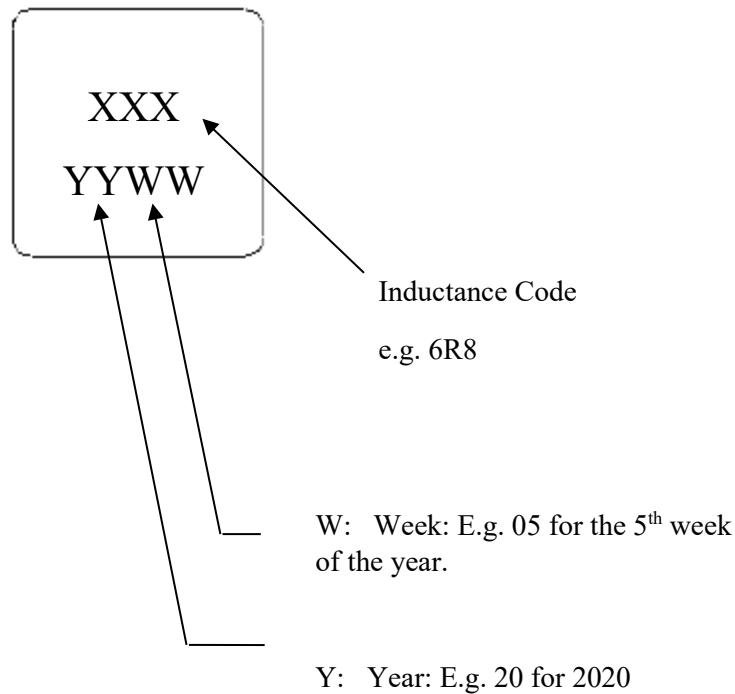


11.9 x 11.0 x 9.7 mm
RoHS/RoHS II Compliant
MSL Level = 1

Part Number Identification



Marking



Marking Method = Ink Marking

Molded SMD Power Inductor



ASPIAIG-Q1010

Request Samples

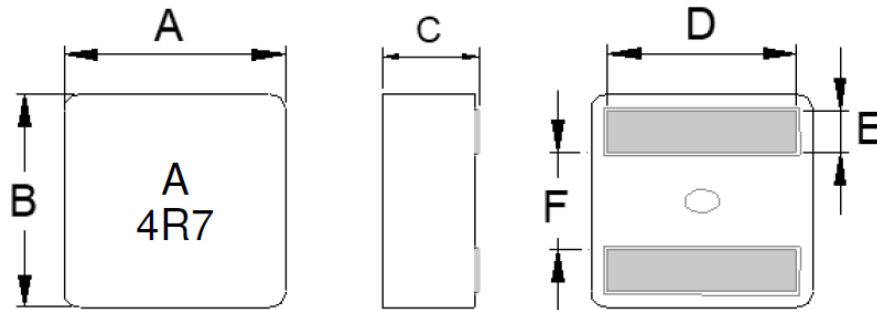


Check Inventory

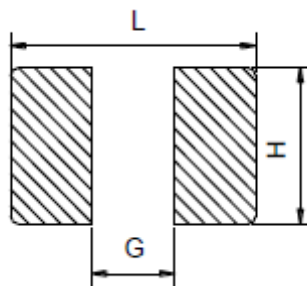


11.9 x 11.0 x 9.7 mm
RoHS/RoHS II Compliant
 MSL Level = 1

Mechanical Dimensions



| Series | A | B | C | D | E | F |
|---------------|------------|------------|-----------|-----------|--------------------------------|-----------|
| ASPIAIG-Q1010 | 11.9 ± 0.3 | 11.0 ± 0.3 | 9.7 ± 0.3 | 2.4 ± 0.2 | Refer to Electrical spec table | 4.4 ± 0.3 |



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

Dimensions: mm

Molded SMD Power Inductor



ASPIAIG-Q1010

Request Samples

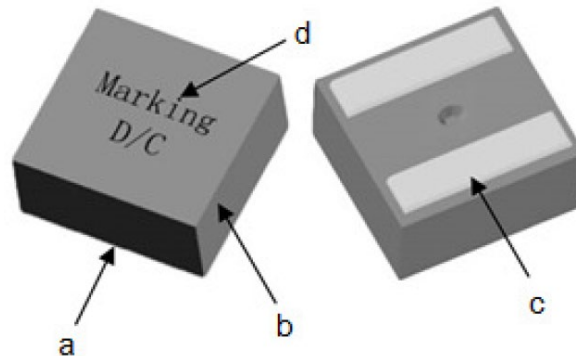


Check Inventory



11.9 x 11.0 x 9.7 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-Q1010

Request Samples

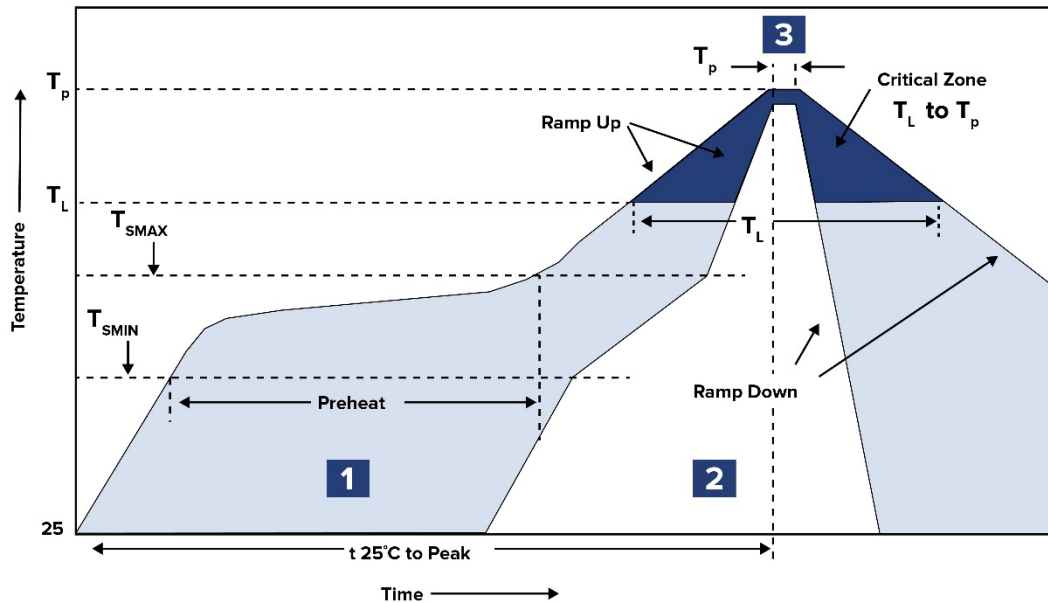


Check Inventory



11.9 x 11.0 x 9.7 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-Q1010

Request Samples



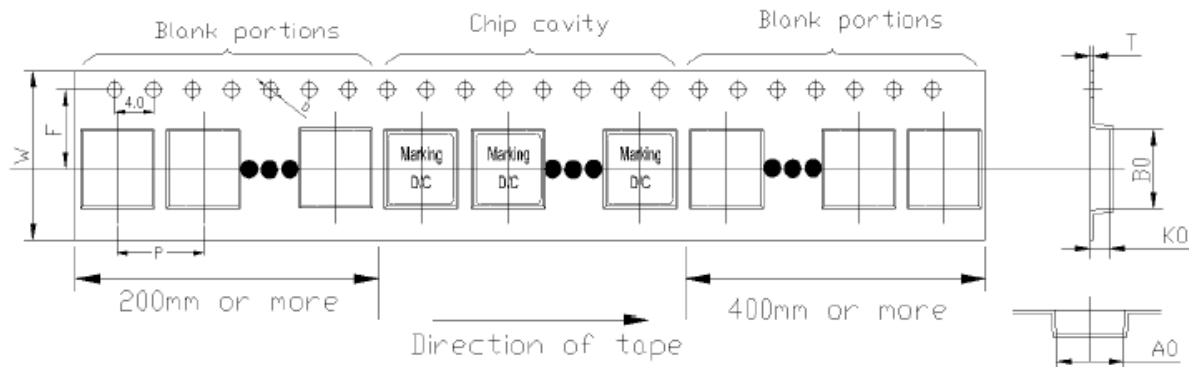
Check Inventory



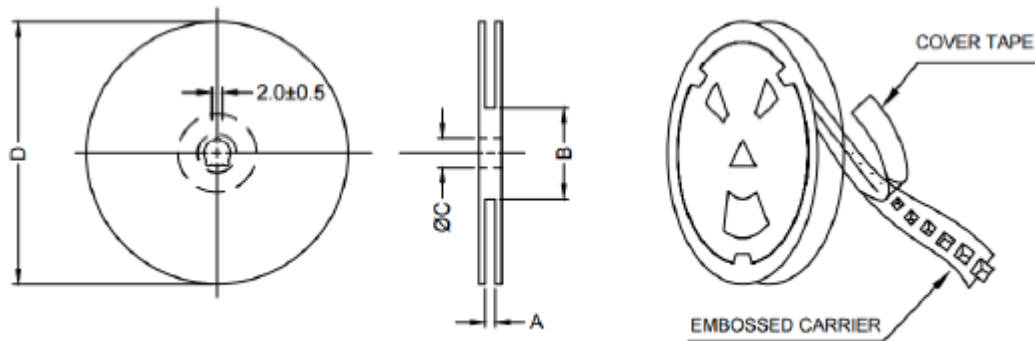
11.9 x 11.0 x 9.7 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

Tape & Reel: 300 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 | 8.9 ± 0.1 | 9.0 ± 0.1 | 0.35 ± 0.05 | 4.5 ± 0.1 |



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

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 02-08-21

ABRACON IS
 ISO9001-2015
 CERTIFIED