

# Molded SMD Power Inductor



## ASPIAIG-Q8080

### 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	Dimension D
	0.1MHz/0.1V		Typ / Max	Typ/Max	Max	±0.4
Units	μH	%	mΩ	A	A	(mm)
Symbol	L		DCR	Isat	Irms	
ASPIAIG Q8080-1R8	1.80	M	4.0	24.0	24.0	7.2
ASPIAIG Q8080-2R2	2.20	M	4.3	22.0	21.5	7.2
ASPIAIG Q8080-3R3	3.30	M	7.3	20.0	18.0	6.9
ASPIAIG Q8080-4R7	4.70	M	9.8	17.0	14.6	6.9
ASPIAIG Q8080-6R8	6.80	M	14.3	12.5	11.3	6.9
ASPIAIG Q8080-100	10.0	M	22.9	10.0	8.7	6.9

### Test Conditions

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

**Irms:** DC current that causes the temperature rise ( $\Delta T$ , 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-Q8080 Series is RoHS Compliant and Pb free**

**ASPIAIG-Q8080 is AEC-Q200 Grade 0 qualified (-55°C ~ +155°C)**

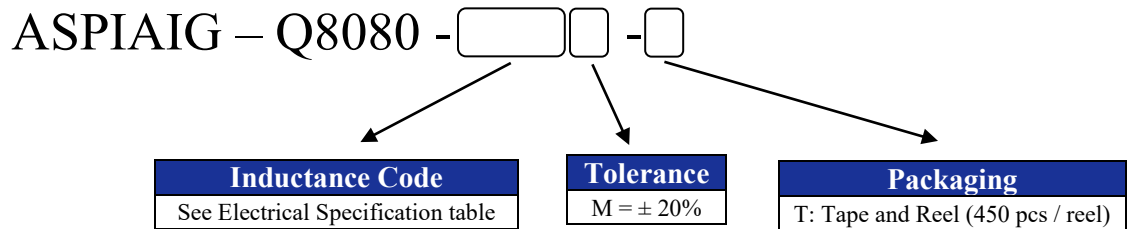
**MSL level: 1**

# Molded SMD Power Inductor

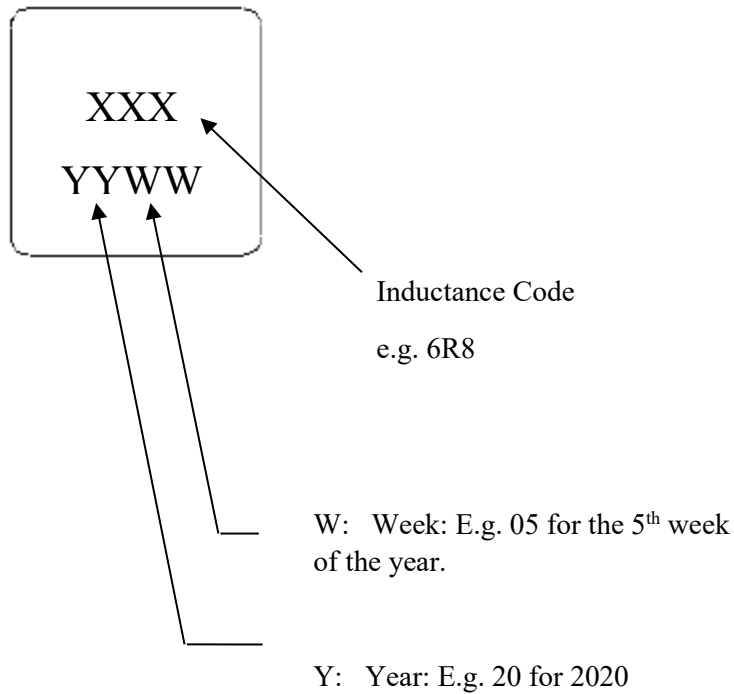


ASPIAIG-Q8080

## Part Number Identification



## Marking



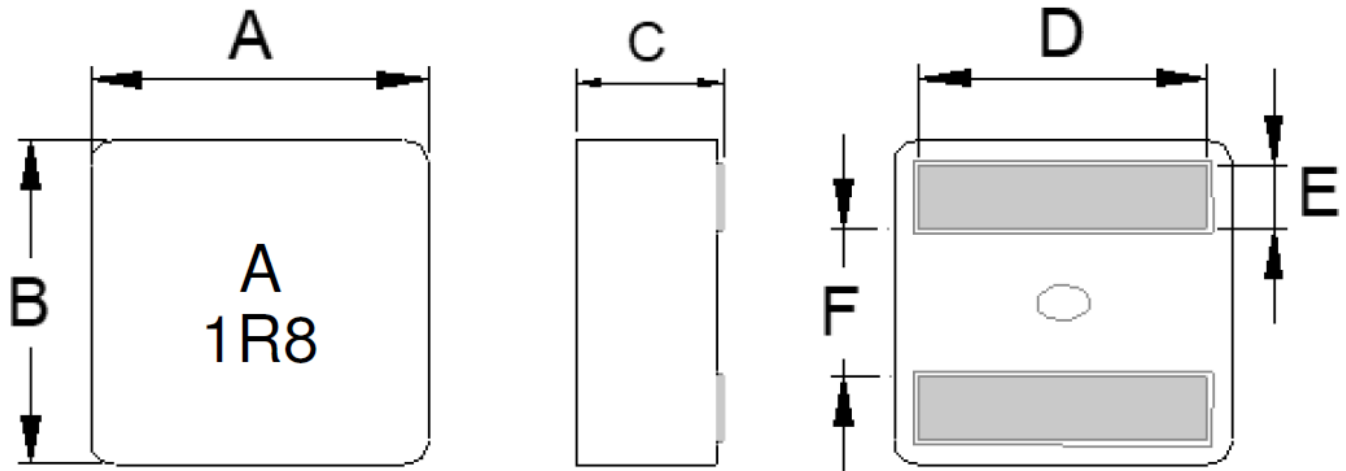
Marking Method = Ink Marking

# Molded SMD Power Inductor

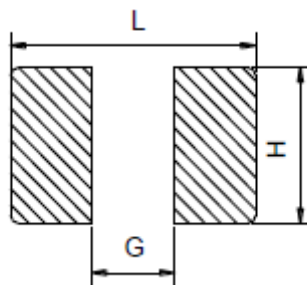


**ASPIAIG-Q8080**

## Mechanical Dimensions



Series	A	B	C	D	E	F
ASPIAIG-Q8080	8.9 ± 0.3	8.5 ± 0.3	7.7 ± 0.3	See Electrical Spec table	1.8 ± 0.2	3.5 ± 0.3



L	G	H
8.0 Ref.	2.7 Ref.	7.8 Ref.

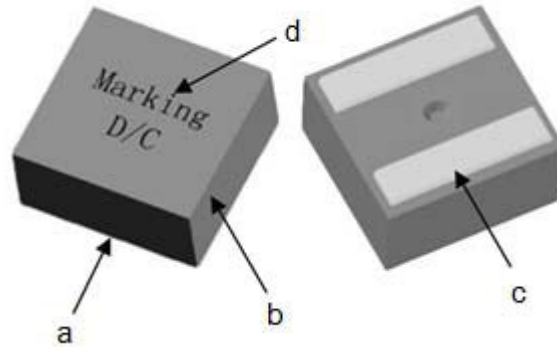
Dimensions: mm

# Molded SMD Power Inductor



ASPIAIG-Q8080

## Materials



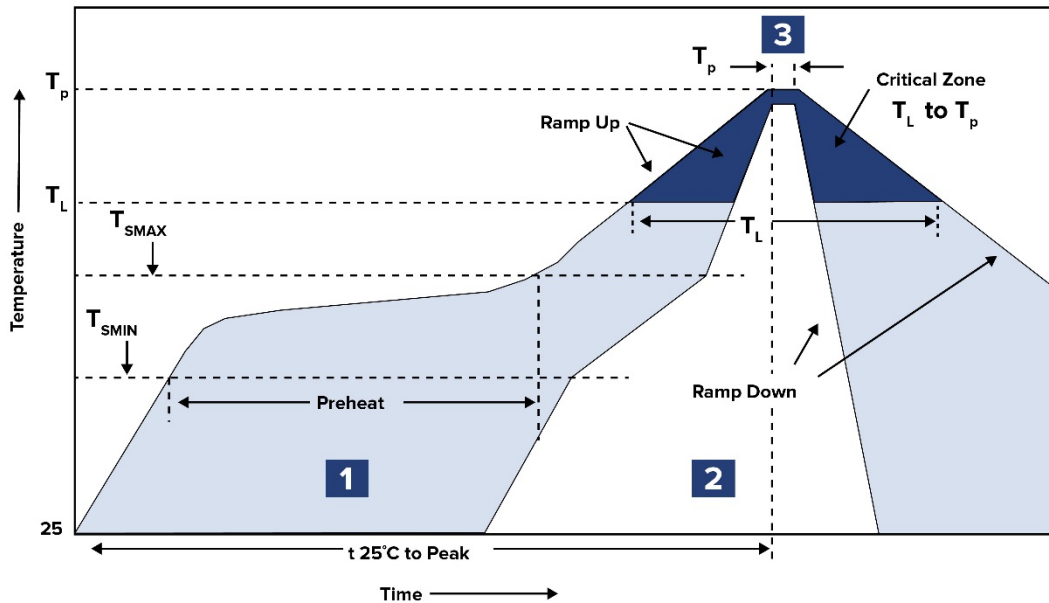
	Components	Material
a	Core	Alloy powder
b	Wire	220 deg. C Flat Wire
c	Solder	100% Pb free solder
d	Ink	Halogen-free ketone

# Molded SMD Power Inductor



ASPIAIG-Q8080

## Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_p$ 260°C	<30 sec. MAX

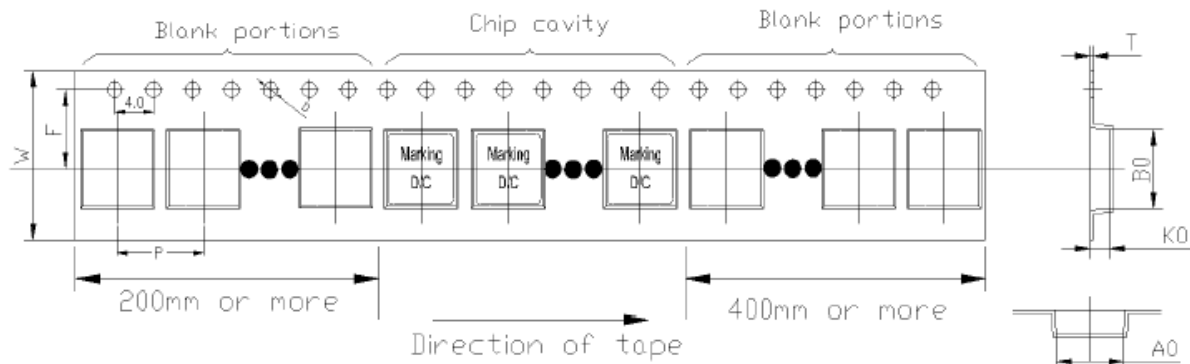
# Molded SMD Power Inductor



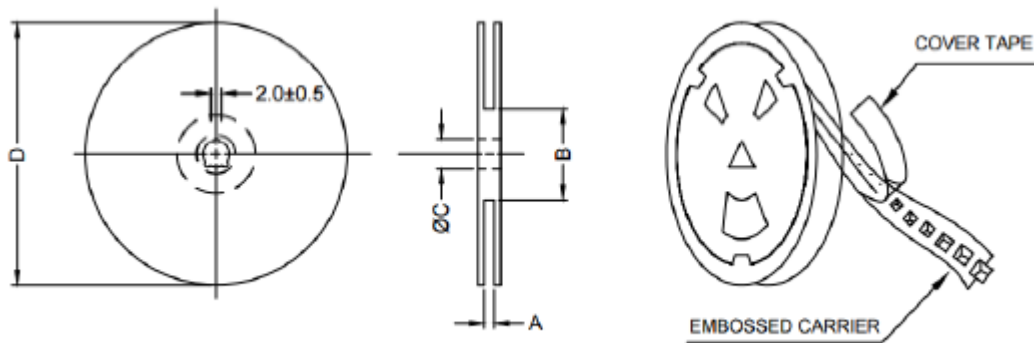
**ASPIAIG-Q8080**

## Packaging

**Tape & Reel: 450 pcs/reel**



W	F	P	D	A <sub>0</sub>	B <sub>0</sub>	T	K <sub>0</sub>
24.0±0.3	7.5±0.1	16.0±0.1	1.5±0.1	9.4±0.1	8.9±0.1	0.35±0.1	8.5±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](http://www.abracon.com)

**REVISED: 02-09-21**

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Fixed Inductors](#) category:*

*Click to view products by [Abracon](#) manufacturer:*

Other Similar products are found below :

[CR43NP-680KC](#) [CR54NP-820KC](#) [CR54NP-8R5MC](#) [CTX32CT-100](#) [70F224AI](#) [MGDQ4-00004-P](#) [MHL1ECTTP18NJ](#) [MHL1JCTTD12NJ](#)  
[PE-51506NL](#) [PE-53601NL](#) [PE-53602NL](#) [PE-53630NL](#) [PE-53824SNLT](#) [PE-62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#)  
[9310-16](#) [PM06-2N7](#) [PM06-39NJ](#) [A01TK](#) [1206CS-471XJ](#) [HC2-2R2TR](#) [HC2LP-R47-R](#) [HC3-2R2-R](#) [1206CS-151XG](#) [RCH664NP-140L](#)  
[RCH664NP-4R7M](#) [RCH8011NP-221L](#) [RCP1317NP-332L](#) [RCP1317NP-391L](#) [RCR1010NP-470M](#) [RCR110DNP-331L](#) [DH2280-4R7M](#)  
[DS1608C-106](#) [ASPI-4020HI-R10M-T](#) [B10TJ](#) [B82477P4333M](#) [B82498B3101J000](#) [B82498B3680J000](#) [ELJ-RE27NJF2](#) [1812CS-153XJ](#)  
[1812CS-183XJ](#) [1812CS-223XJ](#) [1812LS-104XJ](#) [1812LS-105XJ](#) [1812LS-124XJ](#) [1812LS-154XJ](#) [1812LS-223XJ](#) [1812LS-224XJ](#)