

ASPIAIG-Q8080

Features

- PPAP ready and supported
- TS16949 certified production lines
- AEC-Q200 Grade 0 qualified $(-55^{\circ}\text{C} \sim +155^{\circ}\text{C})$
- 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	%	m Ω	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 (ΔT, approximate 40 °C) from 20°C ambient

Operating Temperature: $-55^{\circ}\text{C} \sim +155^{\circ}\text{C}$ (including self-temperature rise) **Storage Condition:** $-55^{\circ}\text{C} \sim +155^{\circ}\text{C}$ (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 $^{\circ}$ C ~ +155 $^{\circ}$ C)

MSL level: 1

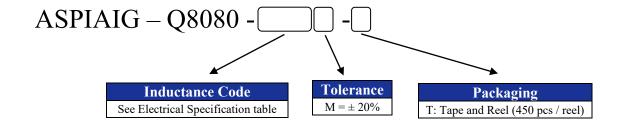


REVISED: 02-09-21

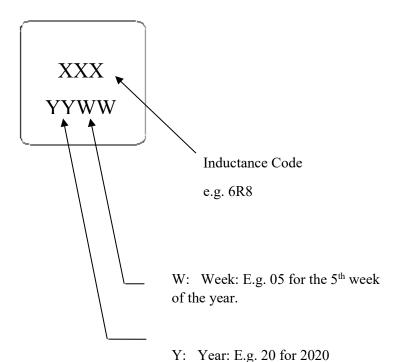


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Part Number Identification



Marking



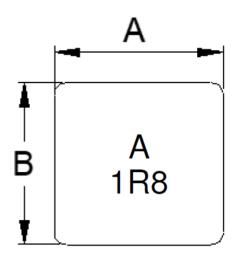
Marking Method = Ink Marking

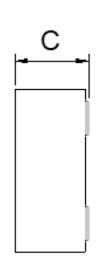


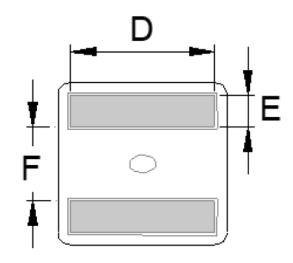


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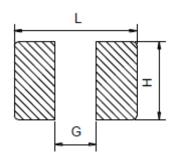
Mechanical Dimensions







Series	A	В	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.

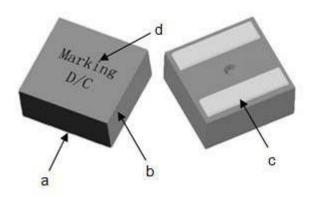
Dimensions: mm





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Materials



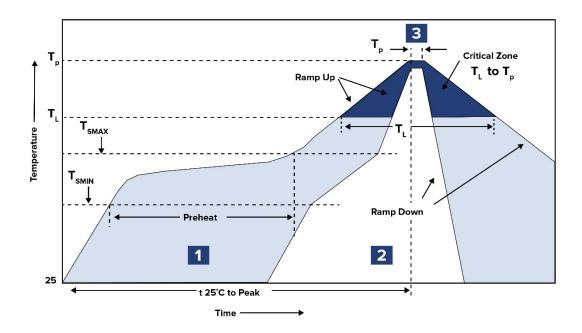
	Components	Material
a	Core	Alloy powder
b	Wire	220 deg. C Flat Wire
С	Solder	100% Pb free solder
d	Ink	Halogen-free ketone





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Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$\begin{split} T_{SMIN} \sim T_{SMAX} \\ 150^{\circ}C \sim 200^{\circ}C \end{split}$	$60 \sim 120 \text{ sec.}$
2	Reflow	T _L 217°C	60 ∼ 150 sec.
3	Peak heat	Т _Р 260°С	<30 sec. MAX

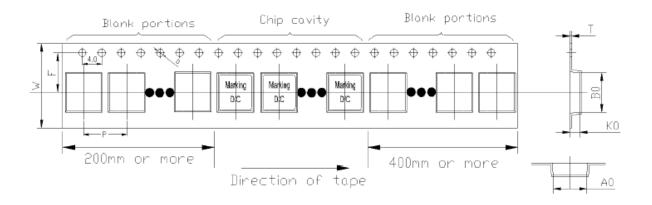




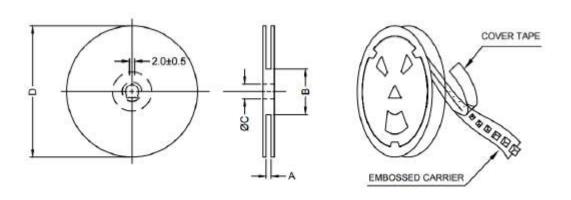
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Packaging

Tape & Reel: 450 pcs/reel



W	F	P	D	A_0	\mathbf{B}_0	T	\mathbf{K}_{0}
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	В	C	D
24.4+2/-0	100 ± 2	13.0+0.5/-0.2	330

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