



## SPECIFICATION FOR APPROVAL

CUSTOMER: \_\_\_\_\_  
CUSTOMER P/N: \_\_\_\_\_  
ATC P/N: DSAB0804-SERIES  
QUANTITY: 0 PCS  
DATE: 2021.02.09

Please confirm your acceptance of this approval sheet by return fax.

APPROVED

REJECTED



DRAWN BY	CHECKED BY	APPROVED BY
林月霞 <i>Alice</i>	張德名 <i>Richard</i>	葉任銘 <i>J.M.Yeh</i>

Acroparts Technology Co., Ltd.

1F No.16 Tze Chiang St. Yangmei, Taoyuan, Taiwan

TEL: +886-3-4881133 FAX: +886-3-4881177



# SPECIFICATION

ATC's DWG NUMBER

DSAB0804-SERIES

PROD. NAME

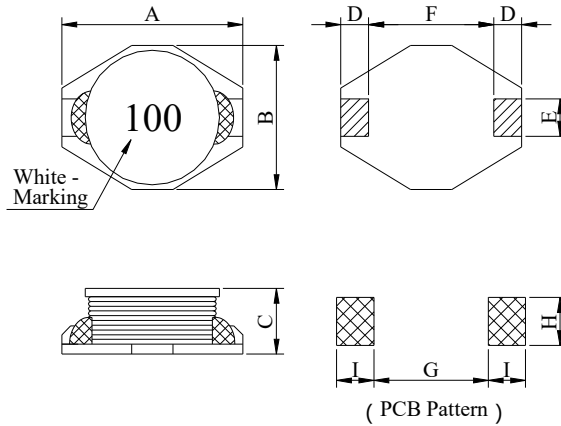
SMD POWER INDUCTOR

REV.

PAGE

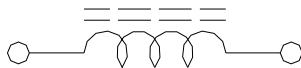
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## 1 Configuration and Dimensions :



Item	Spec. (mm)
A	12.95 max.
B	9.40 max.
C	5.21 max.
D	2.54 typ.
E	2.54 typ.
F	7.62 typ.
G	7.37 ref.
H	2.79 ref.
I	2.92 ref.

## 2 Schematic Diagram :



## 3 Rating :

Operating Temperature:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$  ( Including self-temperature rise )

Storage Temperature: Under  $25^{\circ}\text{C}$ , Humidity  $< 75\%$

## 4 Material List :

- a. Core: Ferrite DR core
- b. Wire: Enamelled copper wire (class H)
- c. Base: LCP E4008
- d. Terminal: Cu / Ni / Sn
- e. Adhesive: Epoxy resin



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**5 Electrical Characteristics :**

DWG No.	Inductance (uH)	Test Freq. (Hz)	SRF (MHz)typ.	RDC (Ω)max.	Isat (A)typ.	Irms (A)typ.	Tol.
DSAB0804-1R0□Z	1.000	100K	100.0	0.009	9.000	6.800	M
DSAB0804-1R5□Z	1.500	100K	90.00	0.010	8.000	6.400	M
DSAB0804-2R2□Z	2.200	100K	80.00	0.012	7.000	6.100	M
DSAB0804-3R3□Z	3.300	100K	65.00	0.015	6.400	5.400	M
DSAB0804-4R7□Z	4.700	100K	45.00	0.018	5.400	4.800	M
DSAB0804-6R8□Z	6.800	100K	38.00	0.027	4.600	4.400	M
DSAB0804-100□Z	10.00	100K	30.00	0.038	3.800	3.900	M
DSAB0804-120□Z	12.00	100K	27.00	0.043	3.500	3.600	M
DSAB0804-150□Z	15.00	100K	27.00	0.046	3.000	3.100	M
DSAB0804-220□Z	22.00	100K	19.00	0.085	2.600	2.700	M
DSAB0804-330□Z	33.00	100K	15.00	0.100	2.000	2.100	M
DSAB0804-470□Z	47.00	100K	12.00	0.140	1.600	1.800	M
DSAB0804-680□Z	68.00	100K	10.00	0.200	1.400	1.500	M
DSAB0804-101□Z	100.0	100K	9.000	0.260	1.200	1.300	M
DSAB0804-151□Z	150.0	100K	6.000	0.400	1.000	1.000	M
DSAB0804-221□Z	220.0	100K	5.000	0.610	0.800	0.800	M
DSAB0804-331□Z	330.0	100K	4.500	1.020	0.600	0.600	M
DSAB0804-471□Z	470.0	100K	3.500	1.270	0.500	0.500	M
DSAB0804-681□Z	680.0	100K	2.500	2.020	0.400	0.400	M
DSAB0804-102□Z	1000	100K	2.000	3.000	0.300	0.300	M
DSAB0804-152□Z	1500	100K	1.400	4.500	0.250	0.200	M

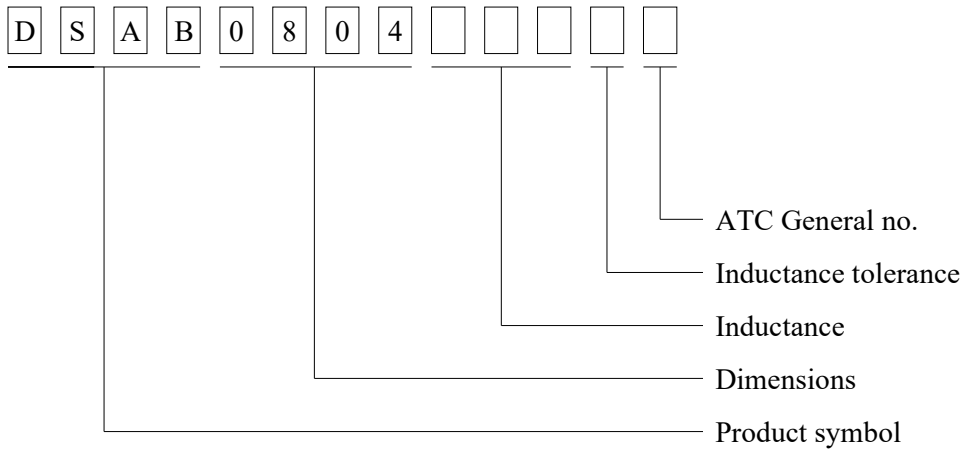
Note:

- -Tolerance: M=±20%
- Isat base on  $\Delta L / L0A=20\%$
- Irms base on Temp. rise 15°C



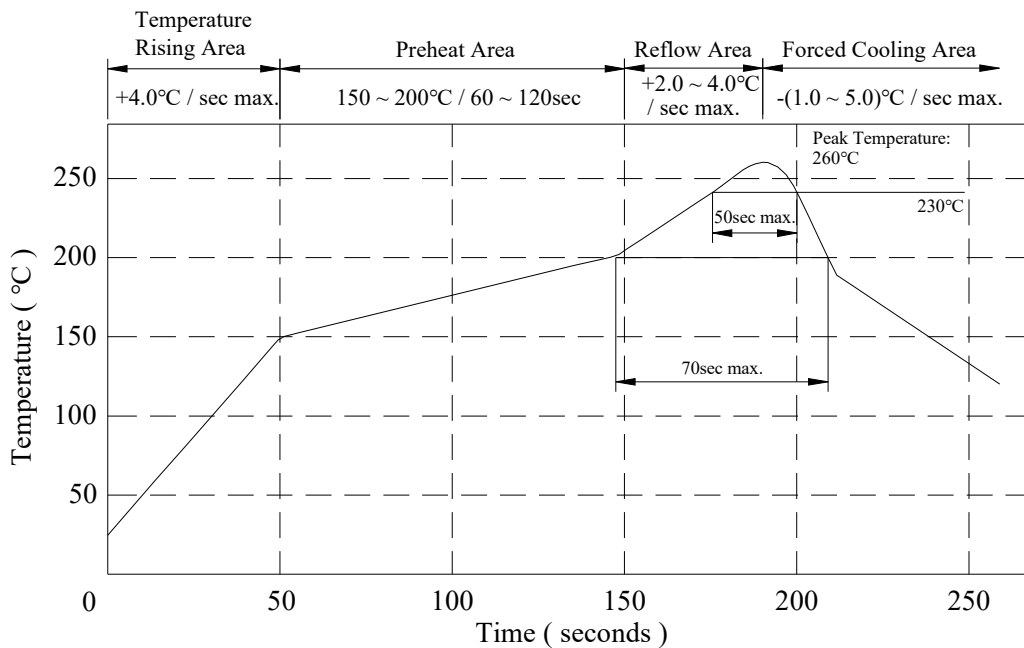
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**6 DWG Expression :**



**7 Classification Reflow Profile :**

Peak Temp: 260°C max.  
 Max time above 230°C : 50sec max.  
 Max time above 200°C : 70sec max.





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**8 Reliability Test :**

1-1.Mechanical Performance

No	Item	Specification	Test Method
1	Vibration	Appearance: No damage Inductance: within±10% of initial value	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
2	Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 260±5°C Immersion Time: 10±1sec
3	Solder ability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 245±5°C Immersion Time: 4±1sec
4	Resistance to solvent	There must be no change in appearance or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.

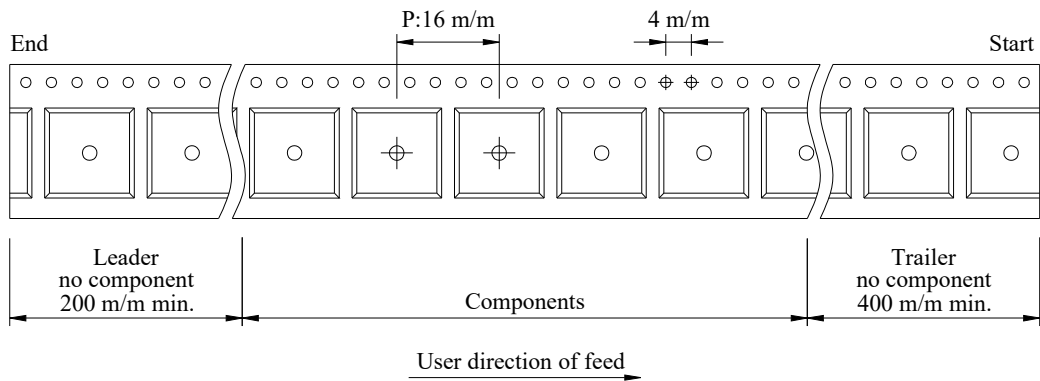
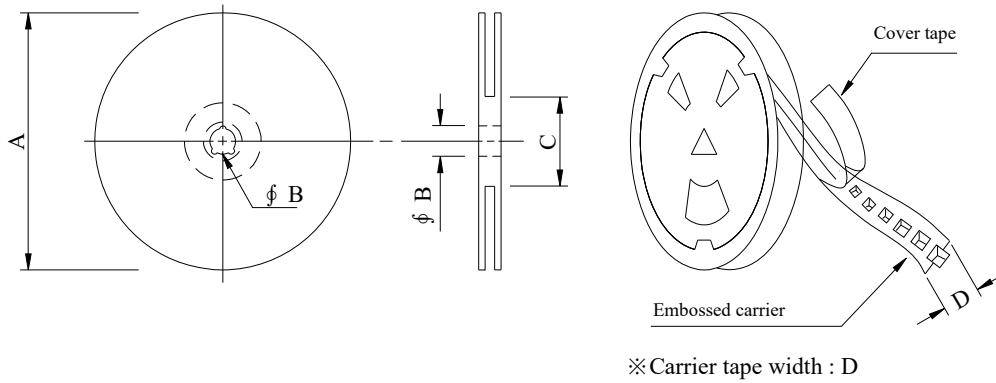
1-2.Environmental Performance

No	Item	Specification	Test Method		
1	Temperature Shock	Appearance: No damage Inductance: within±10% of initial value	10 cycles (Air to Air) 1 cycles shall consist of: 30 minutes exposure to -55 °C 30 minutes exposure to 125 °C 15 seconds maximum transition between temperatures		
2	Temperature Cycle		One cycle:		
			Step	Temperature (°C)	Time (min)
			1	-25±3	30
			2	25±2	3
			3	85±3	30
4	25±2	3			
			Total: 100cycles Measured after exposure in the room condition for 24hrs		
3	Humidity Resistance		Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs		
4	Heat Life		Temperature: 85±3°C Relative Humidity: 20% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs		
5	Cold Resistance		Temperature: -25±3°C Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs		



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Reel type	A	B	C	D	Reel Q'ty
13-24	330mm	13mm	100mm	24mm	750pcs