



SPECIFICATION FOR APPROVAL

CUSTOMER : Schukat electronic Vertriebs
CUSTOMER P/N :
ATC P/N : DSNS0704-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>

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SPECIFICATION

ATC's DWG NUMBER

DSNS0704-SERIES

PROD. NAME

SHIELDED SMD POWER INDUCTOR

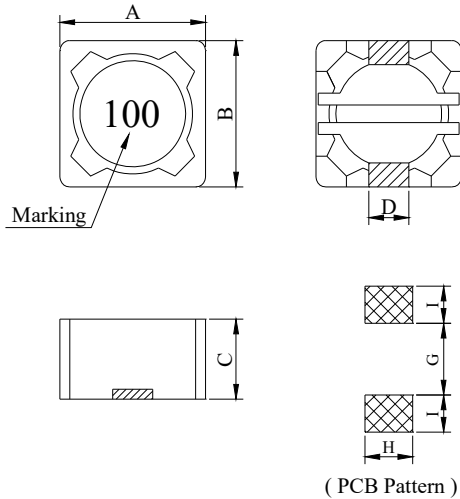
REV.

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1 Configuration and Dimensions :



Item	Spec. (mm)
A	7.30 ± 0.20
B	7.30 ± 0.20
C	4.50 max.
D	1.80 typ.
G	4.40 ref.
H	2.20 ref.
I	2.00 ref.

2 Schematic Diagram :



3 Rating :

Operating Temperature : -40°C ~ +105°C

Storage Temperature : Under 40°C , Humidity < 75%

4 Material List :

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



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5 Electrical Characteristics :

DWG No.	Inductance (uH)	Test Freq. (Hz)	RDC (Ω)max.	IDC (A)max.	Tol.
DSNS0704-1R0□Z	1.000	1K	0.015	6.000	M
DSNS0704-2R2□Z	2.200	1K	0.020	5.000	M
DSNS0704-3R3□Z	3.300	1K	0.030	4.200	M
DSNS0704-4R7□Z	4.700	1K	0.035	3.300	M
DSNS0704-5R6□Z	5.600	1K	0.047	3.000	M
DSNS0704-6R8□Z	6.800	1K	0.048	2.900	M
DSNS0704-8R2□Z	8.200	1K	0.050	2.000	M
DSNS0704-100□Z	10.00	1K	0.049	1.840	M
DSNS0704-120□Z	12.00	1K	0.058	1.710	M
DSNS0704-150□Z	15.00	1K	0.081	1.470	M
DSNS0704-180□Z	18.00	1K	0.091	1.310	M
DSNS0704-220□Z	22.00	1K	0.110	1.230	M
DSNS0704-270□Z	27.00	1K	0.150	1.120	M
DSNS0704-330□Z	33.00	1K	0.170	0.960	M
DSNS0704-390□Z	39.00	1K	0.230	0.910	M
DSNS0704-470□Z	47.00	1K	0.260	0.880	M
DSNS0704-560□Z	56.00	1K	0.350	0.750	M
DSNS0704-680□Z	68.00	1K	0.380	0.690	M
DSNS0704-820□Z	82.00	1K	0.430	0.610	M
DSNS0704-101□Z	100.0	1K	0.610	0.600	M
DSNS0704-121□Z	120.0	1K	0.660	0.520	M
DSNS0704-151□Z	150.0	1K	0.880	0.460	M
DSNS0704-181□Z	180.0	1K	0.980	0.420	M
DSNS0704-221□Z	220.0	1K	1.170	0.360	M
DSNS0704-271□Z	270.0	1K	1.640	0.340	M
DSNS0704-331□Z	330.0	1K	1.860	0.320	M
DSNS0704-391□Z	390.0	1K	2.850	0.290	M
DSNS0704-471□Z	470.0	1K	3.010	0.260	M
DSNS0704-561□Z	560.0	1K	3.620	0.230	M
DSNS0704-681□Z	680.0	1K	4.630	0.220	M

Note :

1. □-Tolerance : M=±20%
2. IDC base on $\Delta L / L0A=35\%$ typ.



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5 Electrical Characteristics :

DWG No.	Inductance (uH)	Test Freq. (Hz)	RDC (Ω)max.	IDC (A)max.	Tol.
DSNS0704-821□Z	820.0	1K	5.200	0.200	M
DSNS0704-102□Z	1000	1K	6.000	0.180	M

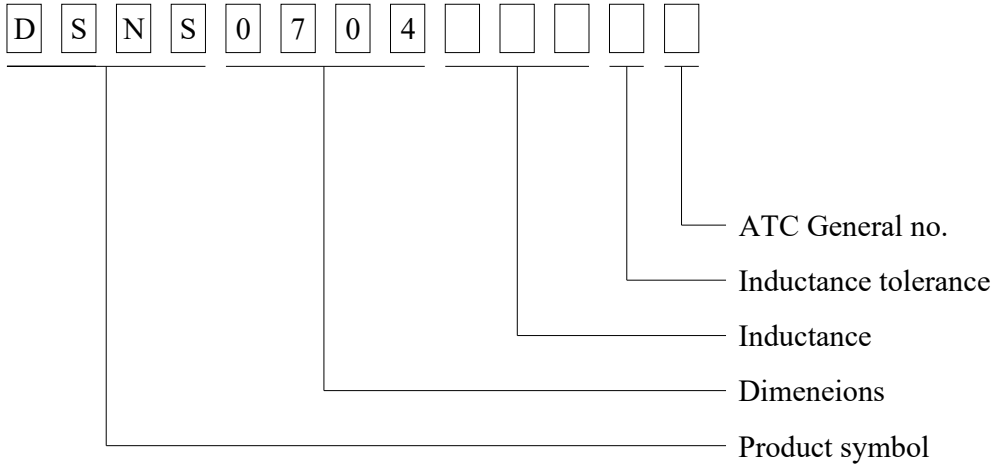
Note :

- Tolerance : M=±20%
- IDC base on $\Delta L / L0A=35\%$ typ.



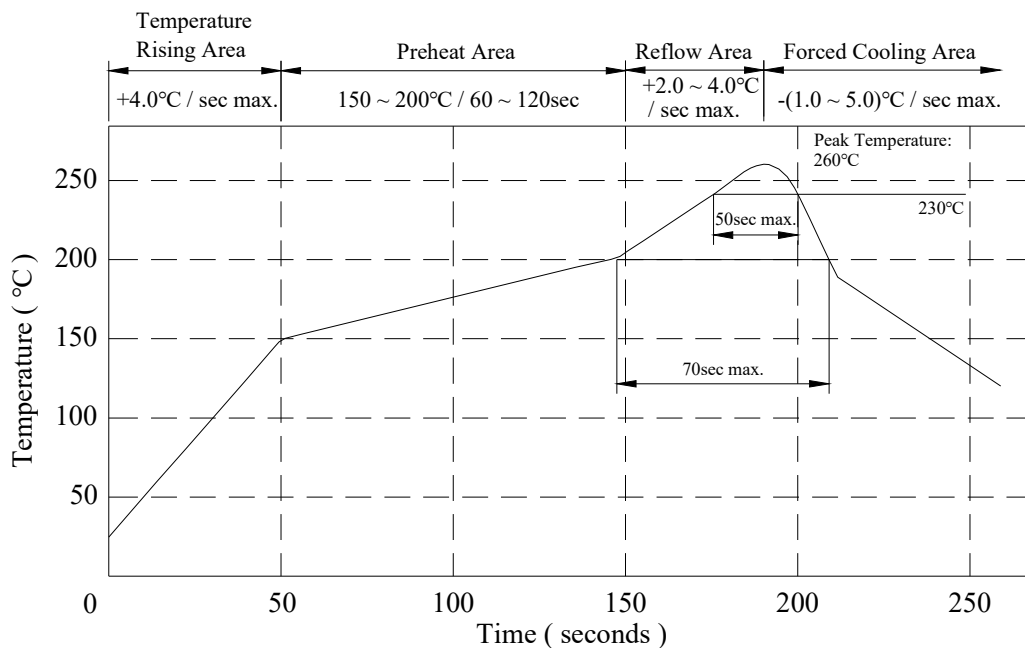
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6 DWG Expression :



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.

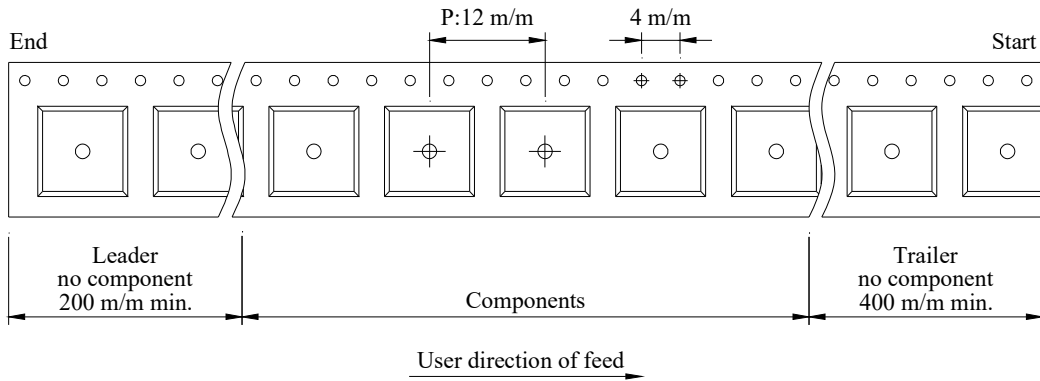
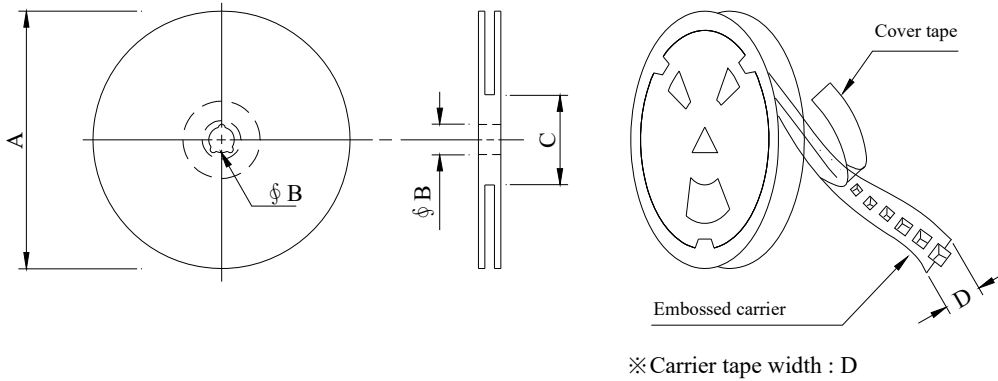
1-2.Environmental Performance

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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9 Packaging Information :



Reel type	A	B	C	D	Reel Q'ty
13-16	330mm	13mm	100mm	16mm	1000pcs