ATC 碩哲科技股份有限公司
ISO9001 ACROPARTS TECHNOLOGY CO.,LTD.

SPECIFICATION FOR APPROVAL

CUSTOMER：	Schukat electronic Vertriebs	
CUSTOMER P/N：		
ATC P/N：	DSGS5D28-SERIES	
QUANTITY：	0	PCS
DATE：	2021.02.09	

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

☐ APPROVED

☐ REJECTED

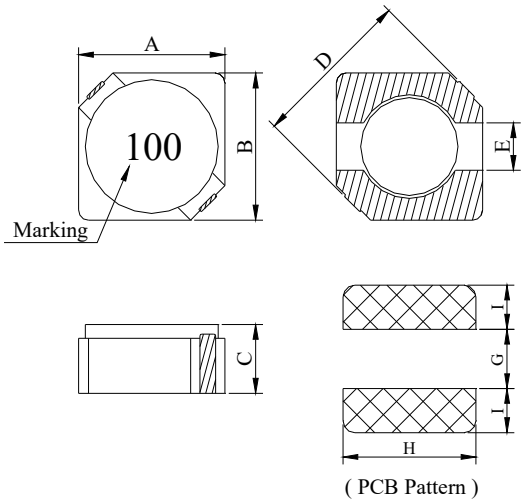
RoHS 危害物質限用

DRAWN BY	CHECKED BY	APPROVED BY
林月霞	張德名	葉任銘
Alice	*Richard*	*J.M.Yeh*

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	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	1

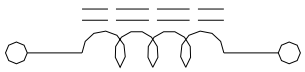
1 Configuration and Dimensions：



(PCB Pattern)

Item	Spec. (mm)
A	5.70 ± 0.30
B	5.70 ± 0.30
C	3.00 max.
D	8.20 max.
E	2.00 typ.
G	2.00 ref.
H	6.30 ref.
I	2.15 ref.

2 Schematic Diagram：



3 Rating：

Operating Temperature：-30℃ ~ +100℃ (Including self-temperature rise)

Storage Temperature：Under 40℃, Humidity < 75%

4 Material List：

a. Core：Ferrite DR core
b. Core：Ferrite RI core
c. Wire：Enamelled copper wire
d. Adhesive：Epoxy resin
e. Terminal：Cu / Ni / Au

SPECIFICATION		ATC's DWG NUMBER	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	2

5 Electrical Characteristics：

DWG No.	Inductance (uH)	Test Freq. (Hz)	RDC (Ω)max.	IDC(A)		Tol.
				typ.	max.	
DSGS5D28-1R0□Z	1.000	10K	0.015	4.200	3.500	T
DSGS5D28-1R5□Z	1.500	10K	0.015	3.700	2.800	T
DSGS5D28-2R2□Z	2.200	10K	0.018	3.100	2.400	T
DSGS5D28-2R5□Z	2.500	10K	0.022	2.700	2.300	T
DSGS5D28-2R6□Z	2.600	10K	0.022	2.600	2.200	T
DSGS5D28-2R7□Z	2.700	10K	0.024	2.600	2.200	T
DSGS5D28-3R0□Z	3.000	10K	0.024	2.500	2.200	T
DSGS5D28-3R3□Z	3.300	10K	0.027	2.500	2.100	T
DSGS5D28-4R2□Z	4.200	10K	0.031	2.200	2.000	T
DSGS5D28-4R3□Z	4.300	10K	0.041	2.100	1.800	T
DSGS5D28-4R7□Z	4.700	10K	0.038	2.000	1.600	T
DSGS5D28-5R0□Z	5.000	10K	0.038	1.900	1.500	T
DSGS5D28-5R3□Z	5.300	10K	0.038	1.900	1.500	T
DSGS5D28-6R2□Z	6.200	10K	0.045	1.800	1.200	T
DSGS5D28-6R8□Z	6.800	10K	0.050	1.600	1.200	T
DSGS5D28-8R2□Z	8.200	10K	0.053	1.500	1.000	T
DSGS5D28-100□Z	10.00	10K	0.065	1.400	0.950	T
DSGS5D28-120□Z	12.00	10K	0.076	1.300	0.900	T
DSGS5D28-150□Z	15.00	10K	0.103	1.100	0.850	T
DSGS5D28-180□Z	18.00	10K	0.110	1.000	0.800	T
DSGS5D28-220□Z	22.00	10K	0.122	0.920	0.750	T
DSGS5D28-270□Z	27.00	10K	0.175	0.820	0.650	T
DSGS5D28-330□Z	33.00	10K	0.189	0.750	0.600	T
DSGS5D28-390□Z	39.00	10K	0.212	0.700	0.550	T
DSGS5D28-470□Z	47.00	10K	0.250	0.620	0.500	T
DSGS5D28-560□Z	56.00	10K	0.305	0.590	0.480	T
DSGS5D28-680□Z	68.00	10K	0.355	0.520	0.420	T
DSGS5D28-820□Z	82.00	10K	0.463	0.460	0.390	T
DSGS5D28-101□Z	100.0	10K	0.520	0.420	0.350	T
DSGS5D28-181□Z	180.0	10K	1.050	0.310	0.210	T

Note：

1. □-Tolerance：T=±30%
2. IDC base on △L / L0A=35%

SPECIFICATION		ATC's DWG NUMBER	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	3

5 Electrical Characteristics：

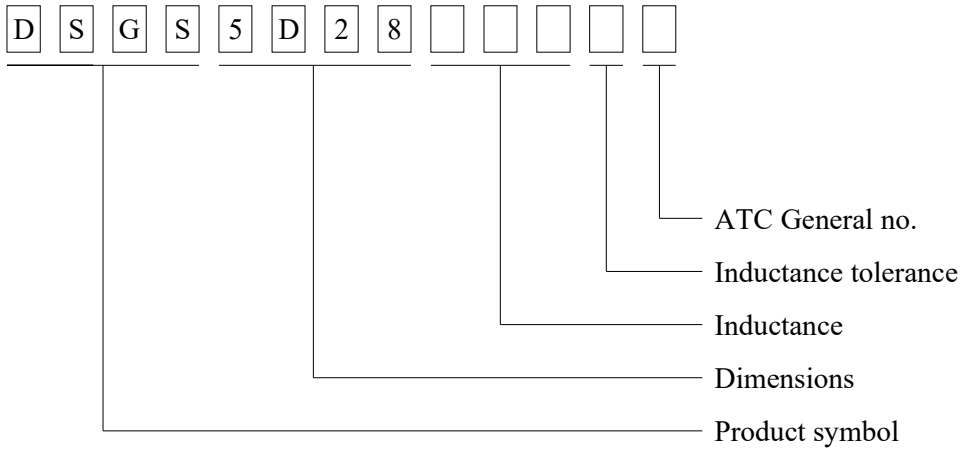
DWG No.	Inductance (uH)	Test Freq. (Hz)	RDC (Ω)max.	IDC(A)		Tol.
				typ.	max.	
DSGS5D28-221□Z	220.0	10K	1.200	0.300	0.200	T
DSGS5D28-331□Z	330.0	10K	1.700	0.240	0.150	T
DSGS5D28-391□Z	390.0	10K	1.800	0.220	0.130	T
DSGS5D28-471□Z	470.0	10K	2.500	0.210	0.110	T
DSGS5D28-561□Z	560.0	10K	3.200	0.170	0.100	T

Note：

1. □-Tolerance：T=±30%
2. IDC base on △L / L0A=35%

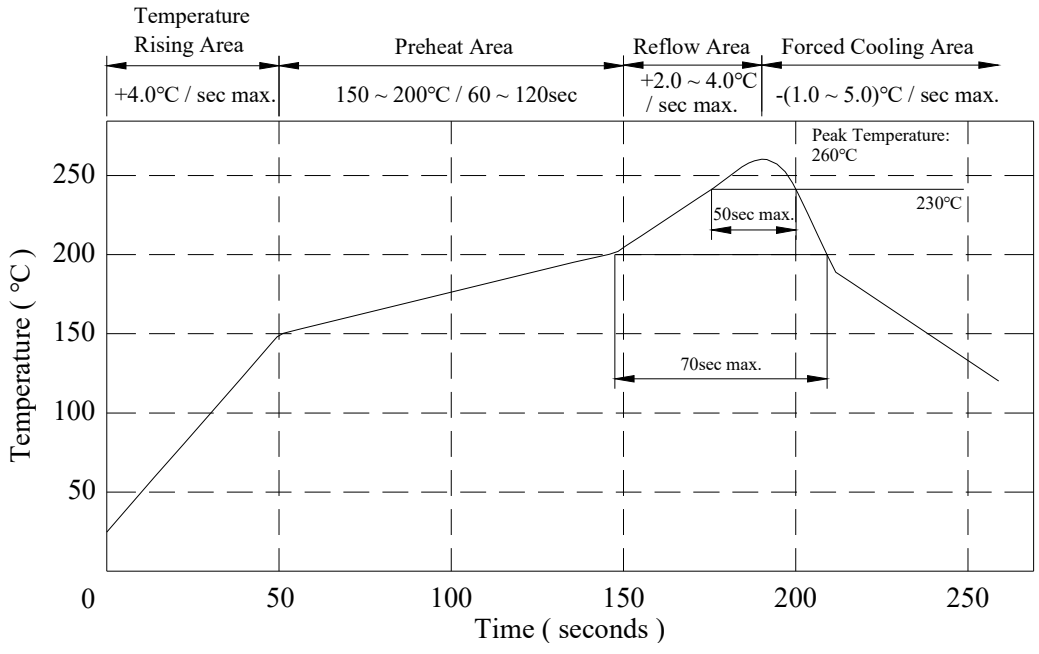
SPECIFICATION		ATC's DWG NUMBER	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	4

6 DWG Expression :



7 Classification Reflow Profile :

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



SPECIFICATION		ATC's DWG NUMBER	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	5

8 Reliability Test：

1-1.Mechanical Performance

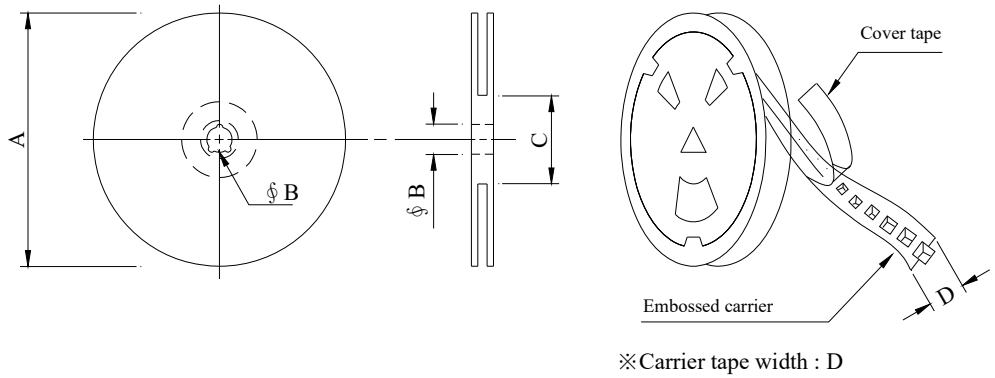
No	Item	Specification	Test Method
1	Vibration	Appearance：No damage Inductance：within±10% of initial value	Test device shall be soldered on the substrate Oscillation Frequency：10 to 55 to 10Hz for 1min Amplitude：1.5mm Time：2hrs for each axis (X, Y & Z), total 6hrs
2	Resistance to Soldering Heat	Apperance：No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

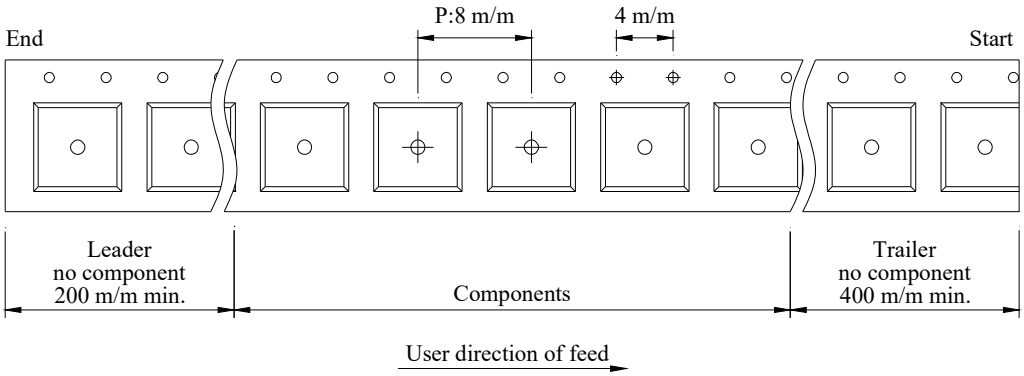
No	Item	Specification	Test Method		
1	Temperature Shock	Appearance：No damage Inductance：within±10% of initial value	10 cycles (Air to Air) 1 cycles shall consist of: 30 minutes exposure to –55 ℃ 30 minutes exposure to 125 ℃ 15 seconds maximum transition between temperatures		
2	Temperature Cycle		One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

SPECIFICATION		ATC's DWG NUMBER	DSGS5D28-SERIES		
PROD. NAME	SHIELDED SMD POWER INDUCTOR	REV.	A	PAGE	6

9 Packaging Information :



※Carrier tape width : D



Reel type	A	B	C	D	Reel Q'ty
13-12	330mm	13mm	100mm	12mm	2000pcs