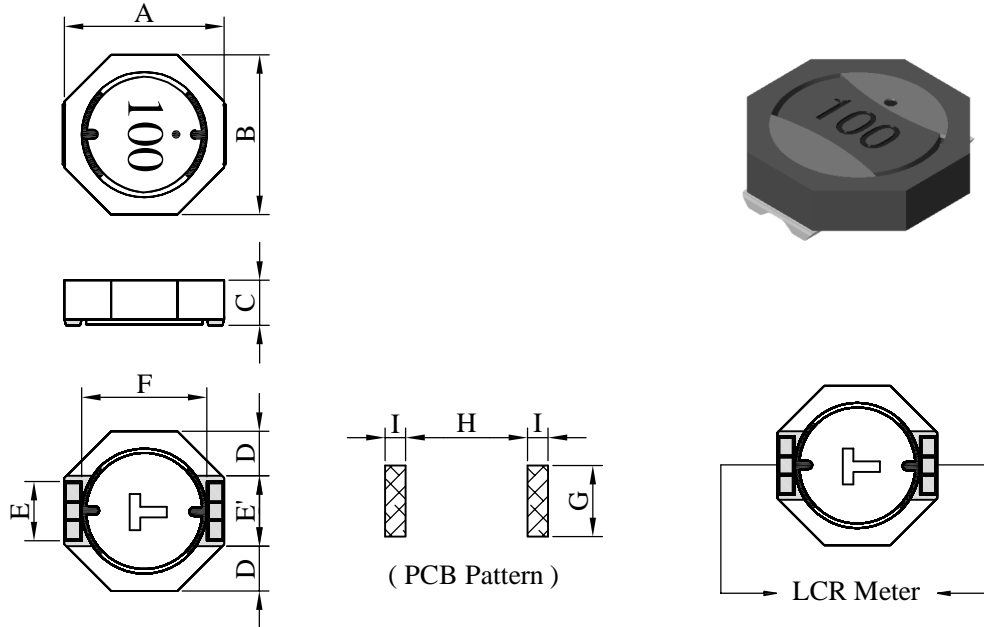


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		SU1028□□□□F□-□□□			
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## I . Configuration and dimensions :



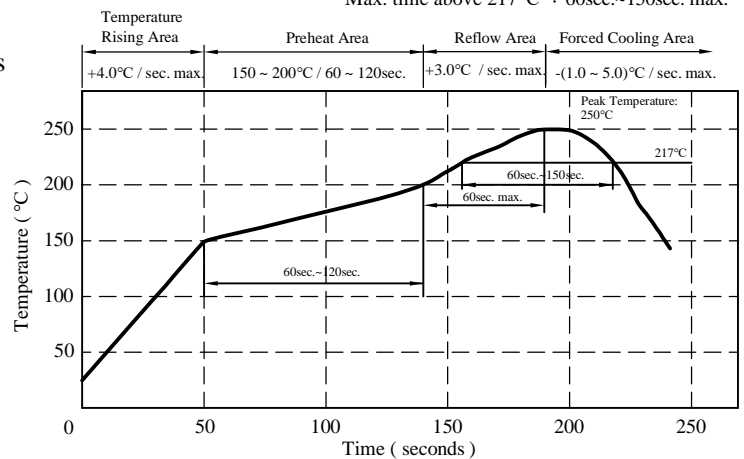
Unit : mm

A	B	C	D	E	E'	F	G	H	I
10.00 ±0.3	10.00 ±0.3	2.80 ±0.3	2.50 typ.	3.20 typ.	5.00 ±0.5	7.40 typ.	4.00 ref.	7.20 ref.	1.80 ref.

## II . Description :

- a . Ferrite drum core construction
- b . Magnetically shielded
- c . Enamelled copper wire : F 、 H class
- d . Product weight : 0.900 g ( ref. )
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free

Peak temp. : 250°C max.  
 Max. peak temp. - 5°C : 30sec. max.  
 Max. time above 217°C : 60sec.~150sec. max.



## III . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C  
( Temp. rise included. )
- c . Resistance to solder heat : 260°C.10 sec.

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# SPECIFICATION FOR APPROVAL

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## IV . Electrical characteristics :

DWG. No.	Inductance ( $\mu$ H)	Q ref.	SRF ( MHz ) typ.	RDC ( m $\Omega$ )		Irms ( A ) max.	Isat ( A ) typ.
				typ.	max.		
SU10281R0YF□-□□□	1.00 $\pm$ 30 %	14	100	4.9	6.5	7.00	8.00
SU10281R5YF□-□□□	1.50 $\pm$ 30 %	12	80	7.3	10.0	6.50	6.50
SU10282R2YF□-□□□	2.20 $\pm$ 30 %	12	65	11.0	15.0	5.30	4.80
SU10283R3YF□-□□□	3.30 $\pm$ 30 %	14	55	15.0	20.0	4.60	4.30
SU10284R7YF□-□□□	4.70 $\pm$ 30 %	12	40	16.5	23.0	4.50	3.80
SU10286R8YF□-□□□	6.80 $\pm$ 30 %	12	30	25.0	33.0	3.50	3.00
SU10288R2YF□-□□□	8.20 $\pm$ 30 %	12	28	28.5	37.0	3.30	2.70
SU1028100YF□-□□□	10.00 $\pm$ 30 %	20	25	40.0	53.0	2.80	2.40
SU1028150YF□-□□□	15.00 $\pm$ 30 %	26	22	69.0	90.0	2.00	2.00
SU1028220YF□-□□□	22.00 $\pm$ 30 %	26	16	104.0	135.0	1.60	1.40
SU1028330YF□-□□□	33.00 $\pm$ 30 %	24	12	139.0	180.0	1.25	1.20
SU1028470YF□-□□□	47.00 $\pm$ 30 %	20	11	167.0	230.0	1.30	1.10
SU1028560YF□-□□□	56.00 $\pm$ 30 %	22	10	208.0	270.0	1.10	1.00
SU1028680YF□-□□□	68.00 $\pm$ 30 %	20	9	232.0	300.0	1.00	0.90
SU1028820YF□-□□□	82.00 $\pm$ 30 %	20	8	323.0	420.0	0.90	0.85
SU1028101YF□-□□□	100.00 $\pm$ 30 %	20	7	365.0	470.0	0.85	0.80
SU1028121YF□-□□□	120.00 $\pm$ 30 %	18	6	428.0	560.0	0.70	0.70
SU1028151YF□-□□□	150.00 $\pm$ 30 %	18	5	518.0	680.0	0.65	0.65

- 1). Electrical specifications at 25°C
- 2). Inductance Test Freq. : 100kHz / 1V
- 3). Q Test Freq. : 1R0~8R2--7.96MHz , 100~820--2.52MHz , 101~151--0.796MHz
- 4). Isat base on  $\Delta L / L0A=35\%$  typ.
- 5). Irms base on Temp. rise 40°C max.

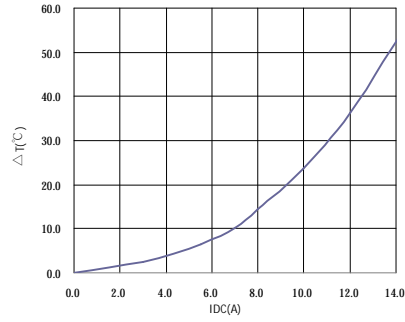
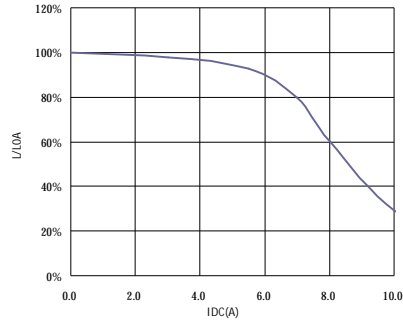
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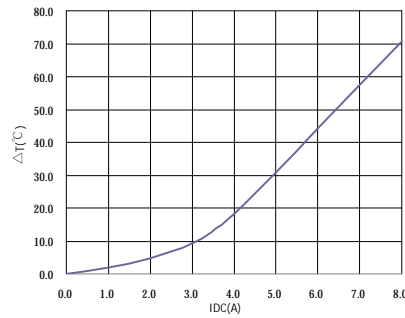
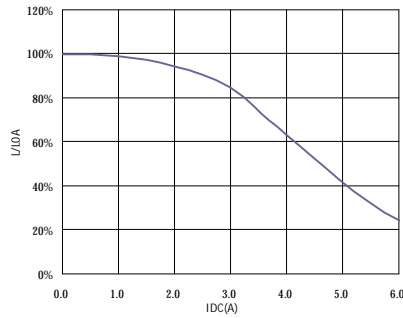
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V . Curve :

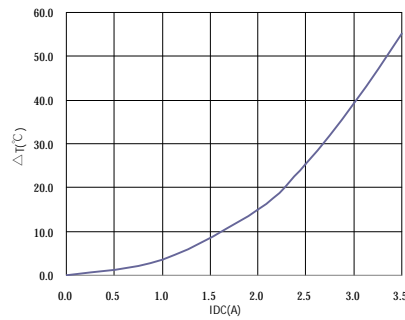
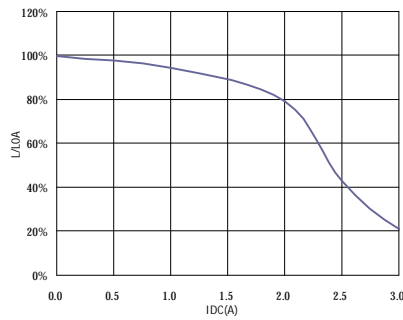
SU10281R0YF□



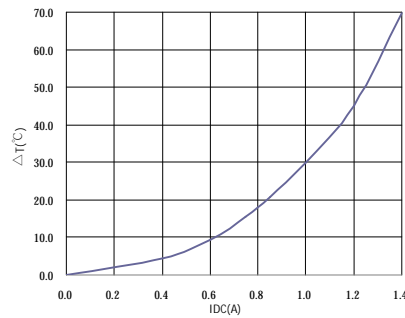
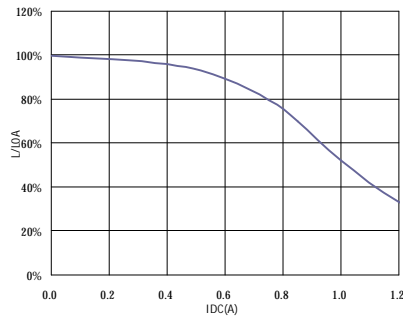
SU10286R8YF□



SU1028150YF□



SU1028101YF□



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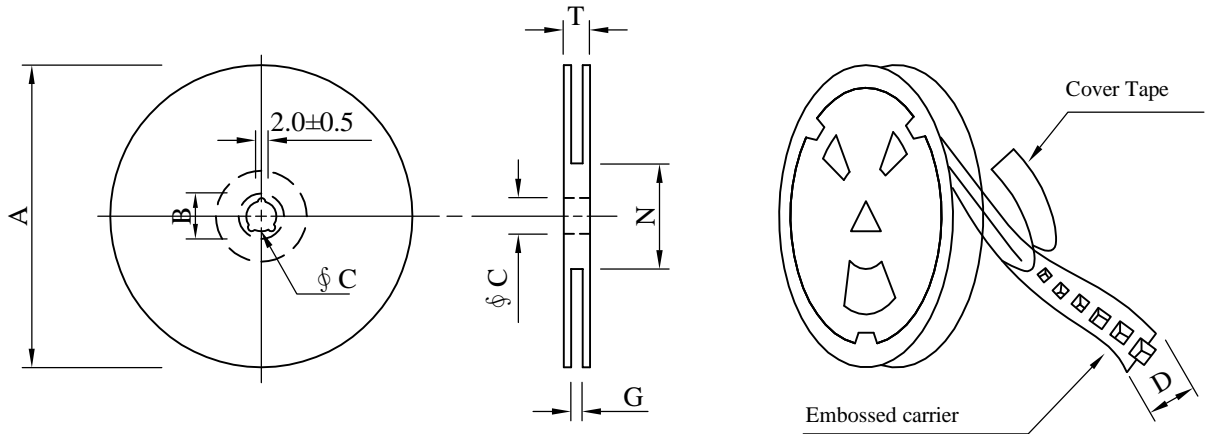
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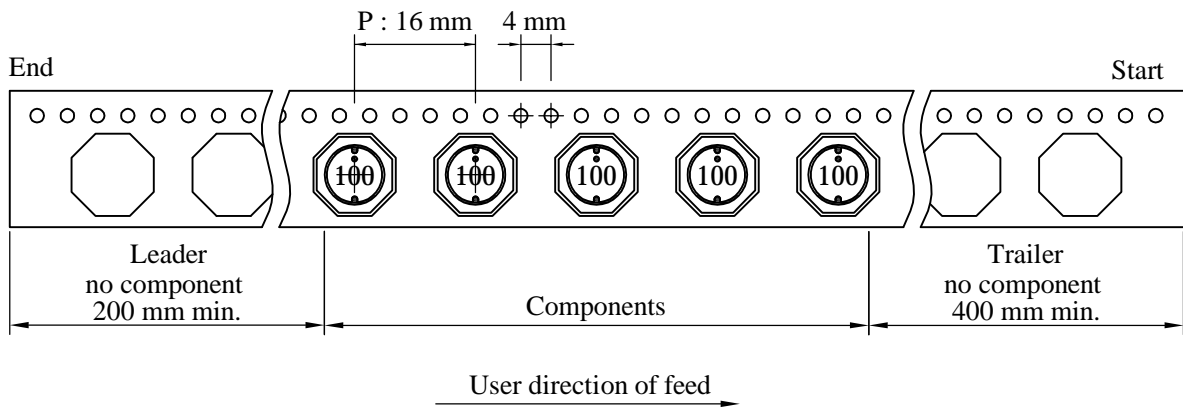
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## VI . Packaging information :

### (1) Configuration



※Carrier tape width : D



### (2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	24	26 <sup>+0</sup>	60 <sup>-0</sup>	30.4

### (3) Q'TY & G.W. Per package

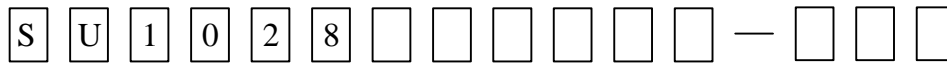
Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY (pcs)	G.W. (kg)	Size (cm)
B	1,000	1340	13 - 24	4,000	6.7	38 x 37 x 22

# SPECIFICATION FOR APPROVAL

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VII . Drawing number expression :



Reference code

Appendix code 2 : Package

Appendix code 1 : Classification

Tolerance code

Electrical code

Dimension code

Type code

Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	UCT	Antistatic	Antistatic	1,000 pcs	

# SPECIFICATION FOR APPROVAL

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## VIII . Reliability test :

Item	Reference documents	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 125±2°C 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40°C ~ +125°C 2.Number of cycle:100 cycles 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature : 85±2 °C 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
4.Operational Life	JESD22-A 108	1.Temperature: 125°C(Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
5.External Visual	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of products. 2.Clear marking. 3.No crack.
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in appearance. 2.No marking blurred. 3.Inductance shall not change more than ±20%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitud : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction, 6 hours in total.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature : 250±5°C 2.Time ( temp.≥ 217°C ) : 60~150 Seconds. 3.IR reflow times : 3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
10.Saturation Current	JIS C 6436 & User SPEC.	1.Applied rated current for 5 seconds. 2.Saturation current	Inductance shall not drop more than 35% typ.
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
12.Temperature Rise Current	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital surface thermometer. 3.Irms current	Surface temperature rise is less than 40°Cmax.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5°C / 16Hours±30 min. 2.Peak temperature : 240±5°C 3.Time ( temp.≥217°C ) : 60~150 seconds. 4.IR reflow times : 1 time.	More than 95% soldering coverage min on terminations.
14.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature : -40°C~125°C 2.Room temperature : 25°C.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. PCB and dropped down from a height of 1m 2.Drop total time : 6 times (Every side of sample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Strength Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage.

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