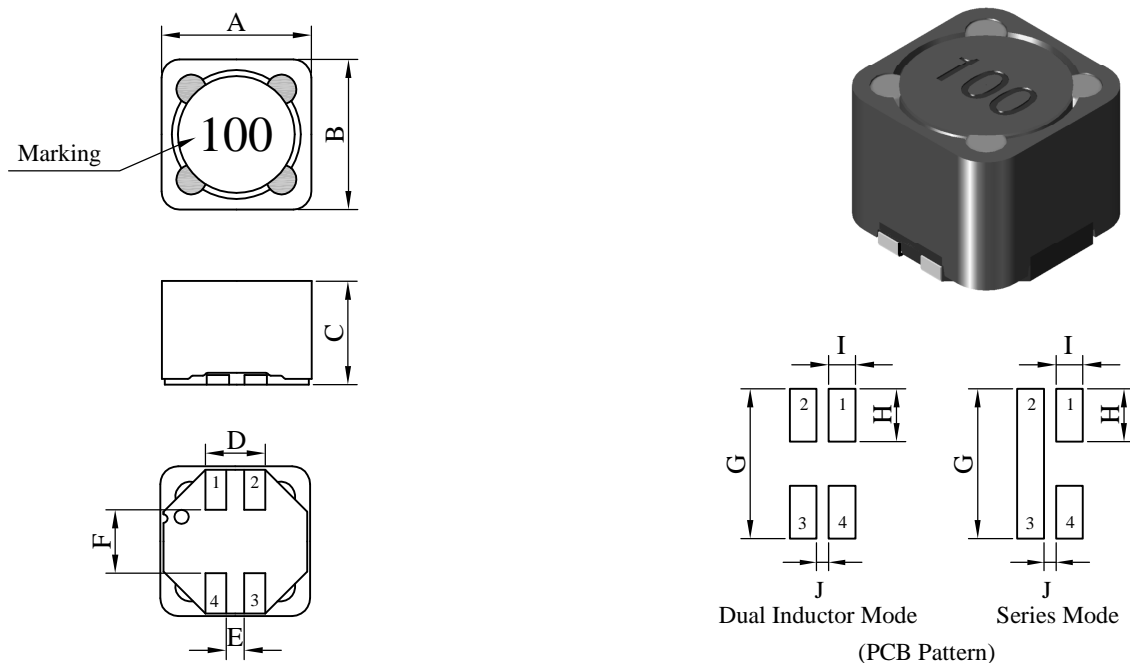


SPECIFICATION FOR APPROVAL

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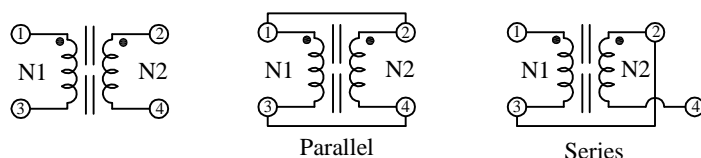
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SF1278□□□□F□-□□□		
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I . Configuration and dimensions :



A	B	C	D	E	F	G	H	I	J
12.50 max.	12.50 max.	8.00 max.	5.00±0.3	1.80±0.2	5.00±0.3	13.00 ref.	4.50 ref.	2.15 ref.	1.28 ref.

II . Schematic diagram :

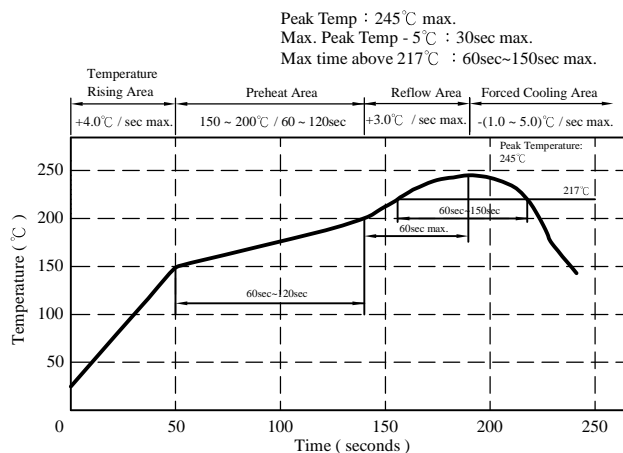


III . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F 、 H class
- d . Product weight : 4.10g (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

IV . General specification :

- a . Storage temp. : -40°C ----+125°C
- b . Operating temp. : -40°C ----+125°C
(Temp. rise included)
- c . Resistance to solder heat : 245°C . 10 secs.



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V . Electrical characteristics :

DWG No.	Parallel Ratings				Series Ratings			
	Inductance (μ H)	RDC ($m\Omega$) max.	Ipeak (A) typ.	Irms (A) typ.	Inductance (μ H)	RDC ($m\Omega$) max.	Ipeak (A) typ.	Irms (A) typ.
SF1278R47YF□-□□□	0.47 \pm 30%	5.5	56.00	17.90	1.676 \pm 30%	21.6	28.000	8.940
SF12781R0YF□-□□□	1.00 \pm 30%	6.7	40.00	15.50	3.284 \pm 30%	26.0	20.000	7.740
SF12781R5YF□-□□□	1.50 \pm 30%	7.6	31.10	13.50	5.428 \pm 30%	30.6	15.600	6.770
SF12782R2YF□-□□□	2.20 \pm 30%	9.2	25.50	12.50	8.108 \pm 30%	33.8	12.700	6.230
SF12783R3YF□-□□□	3.30 \pm 30%	11.0	21.50	10.40	11.320 \pm 30%	40.0	10.800	5.230
SF12784R7YF□-□□□	4.70 \pm 30%	13.5	16.50	8.25	19.360 \pm 30%	50.0	8.240	4.130
SF12786R8YF□-□□□	6.80 \pm 30%	18.3	13.30	7.34	29.550 \pm 30%	65.6	6.670	3.670
SF12788R2YF□-□□□	8.20 \pm 30%	19.1	12.20	6.32	35.440 \pm 30%	71.4	6.090	3.160
SF1278100MF□-□□□	10.00 \pm 20%	24.1	11.20	6.04	41.880 \pm 20%	92.1	5.600	3.020
SF1278150MF□-□□□	15.00 \pm 20%	33.3	9.66	5.03	56.360 \pm 20%	129.0	4.830	2.510
SF1278220MF□-□□□	22.00 \pm 20%	50.3	7.57	4.00	91.720 \pm 20%	192.0	3.780	2.000
SF1278330MF□-□□□	33.00 \pm 20%	66.4	6.22	3.23	135.700 \pm 20%	265.0	3.110	1.610
SF1278470MF□-□□□	47.00 \pm 20%	89.8	5.28	2.95	188.200 \pm 20%	353.0	2.640	1.470
SF1278680MF□-□□□	68.00 \pm 20%	123.0	4.44	2.44	265.900 \pm 20%	469.0	2.220	1.220
SF1278820MF□-□□□	82.00 \pm 20%	153.0	4.06	2.09	319.000 \pm 20%	578.0	2.030	1.040
SF1278101MF□-□□□	100.00 \pm 20%	175.0	3.64	1.96	397.200 \pm 20%	701.0	1.820	0.980
SF1278151MF□-□□□	150.00 \pm 20%	261.0	3.01	1.59	579.600 \pm 20%	1013.0	1.510	0.796
SF1278221MF□-□□□	220.00 \pm 20%	343.0	2.43	1.29	886.000 \pm 20%	1380.0	1.220	0.645
SF1278331MF□-□□□	330.00 \pm 20%	540.0	2.01	1.04	1294.000 \pm 20%	2172.0	1.010	0.522
SF1278471MF□-□□□	470.00 \pm 20%	865.0	1.68	0.85	1868.000 \pm 20%	3300.0	0.838	0.427
SF1278681MF□-□□□	680.00 \pm 20%	1296.0	1.39	0.76	2707.000 \pm 20%	4888.0	0.697	0.380
SF1278821MF□-□□□	820.00 \pm 20%	1632.0	1.27	0.65	3272.000 \pm 20%	5896.0	0.633	0.325
SF1278102MF□-□□□	1000.00 \pm 20%	1992.0	1.14	0.61	4020.000 \pm 20%	7202.0	0.571	0.307

- 1). □ : Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance Test Condition. : 100kHz / 0.25V
- 5). Irms base on Temp. rise 40°C typ.
- 6). Ipeak base on Δ L/LOA = 30% typ.

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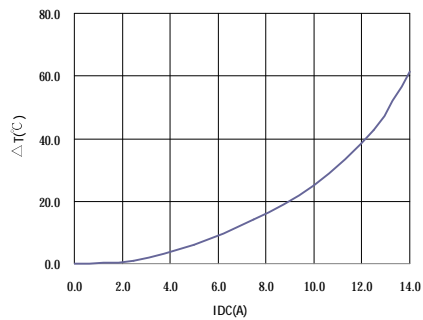
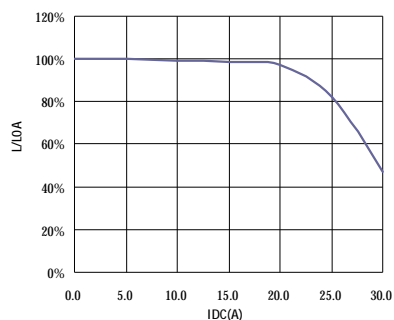
SPECIFICATION FOR APPROVAL

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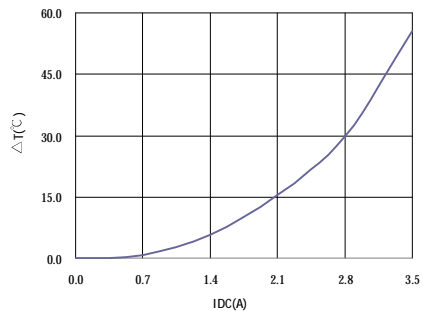
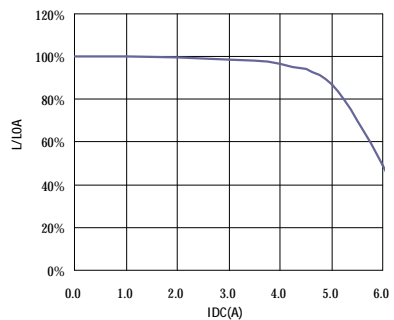
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VI . Curve :

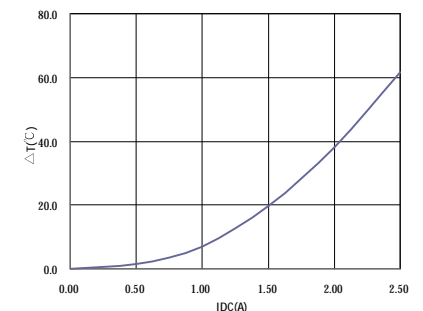
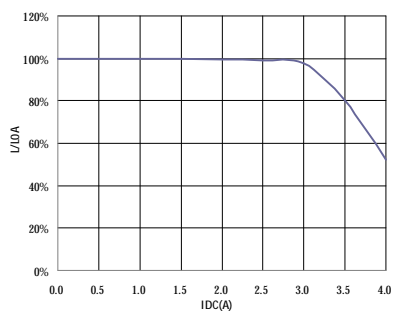
SF12782R2YF□



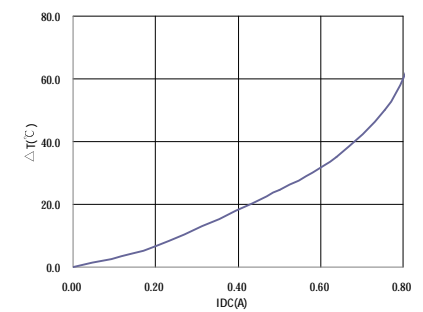
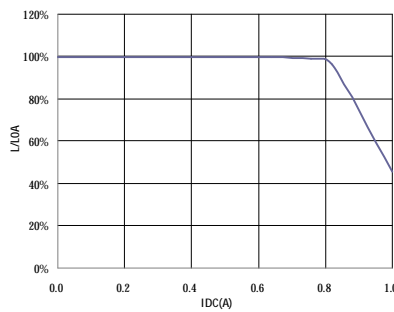
SF1278470MF□



SF1278101MF□



SF1278102MF□



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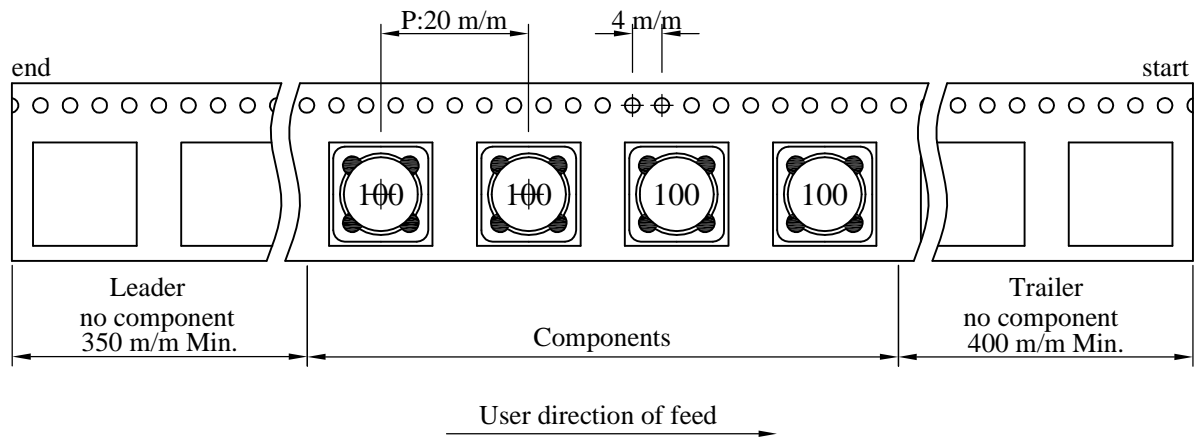
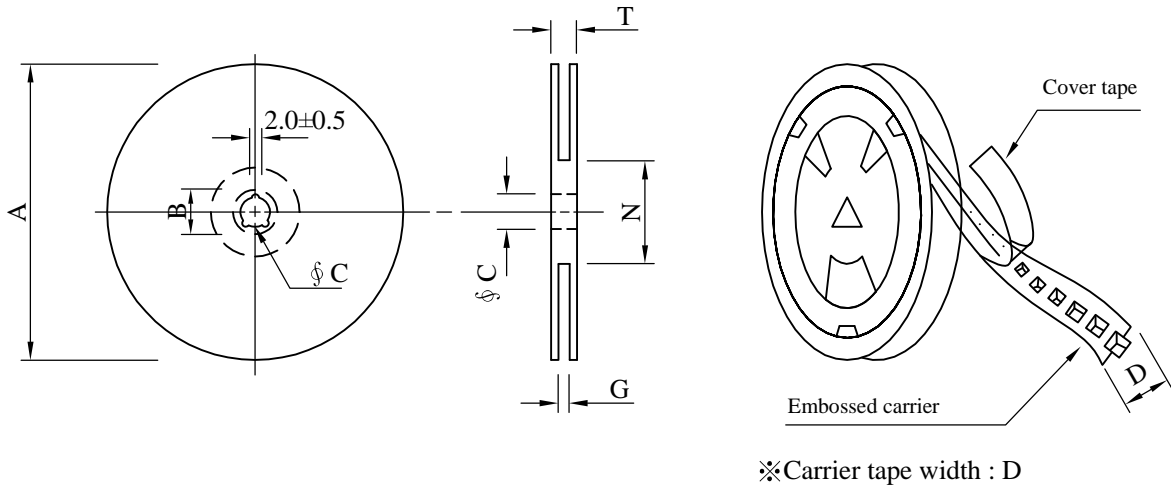
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VII . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13	24	26 ⁺⁰	60 ⁻⁰	30.4

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

Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (PCS)	G.W. (Kg)	Size (cm)
B	400	1950	13 - 24	1,600	9.1	38 x 37 x 22

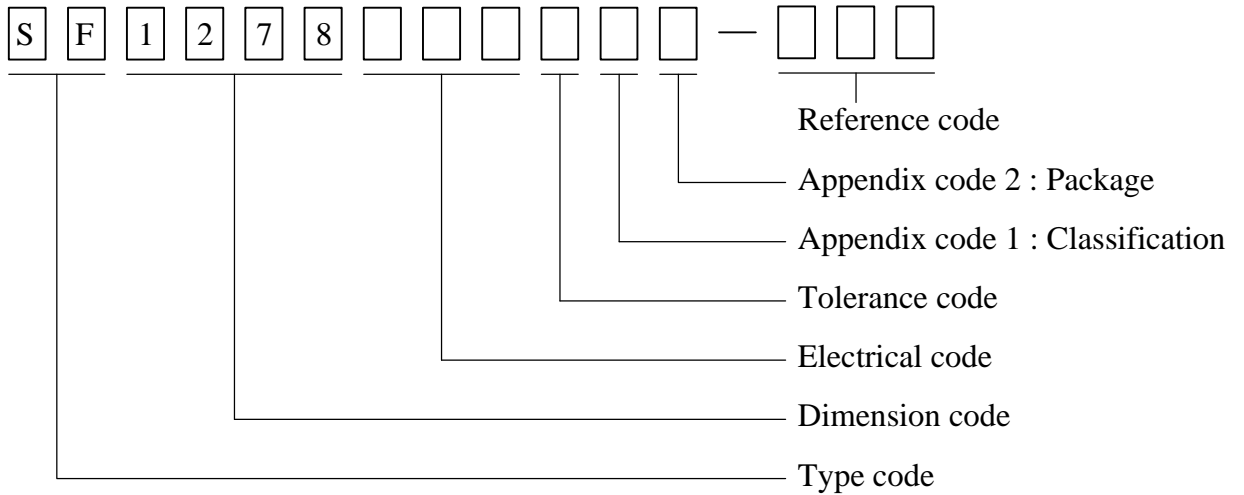
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VII . Drawing number expression :



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	400 pcs	

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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℃ 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℃ ~ +125℃ 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℃ 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℃ (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 apperance. 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 : 245±5℃. 2.Time (temp. ≥ 217℃) : 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 30% 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℃ typ.
13.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Peak temperature : 240±5℃ 3.Time (temp. ≥ 217℃) : 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℃~125℃ 2.Room temperature : 25℃.	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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