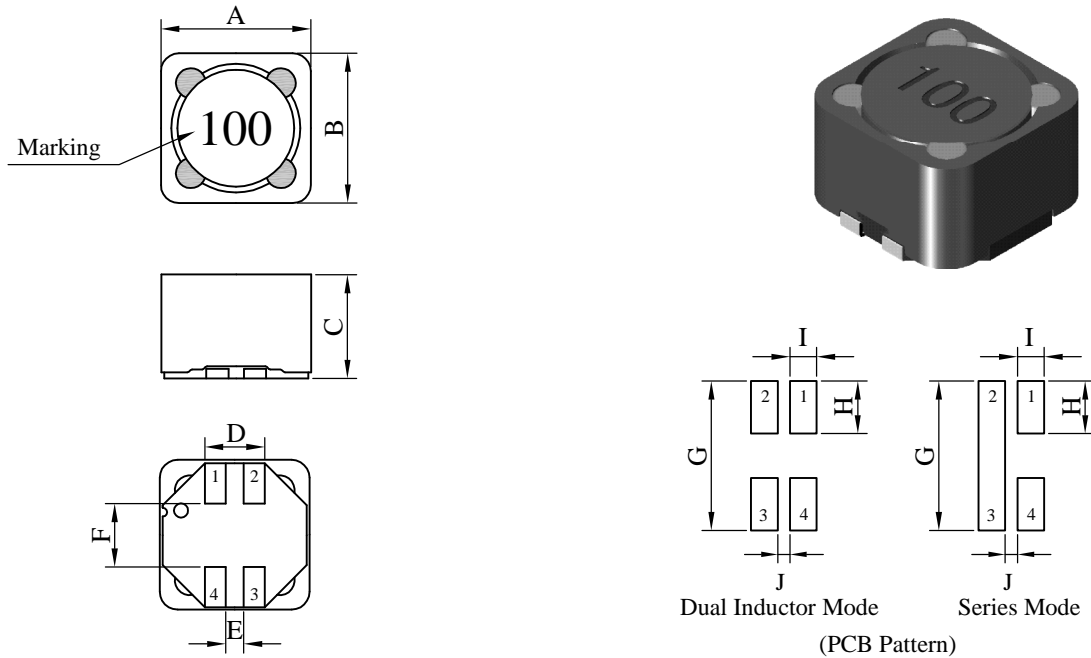


SPECIFICATION FOR APPROVAL

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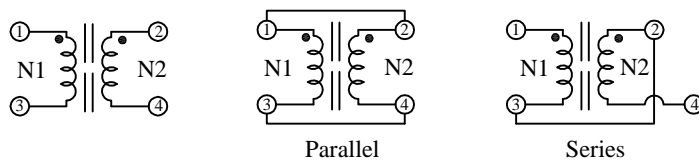
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	SF1258□□□□F□-□□□		
		REV.	20160901-D	PAGE	1

I . Configuration and dimensions :



A	B	C	D	E	F	G	H	I	J
12.50 max.	12.50 max.	6.00±0.2	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 :

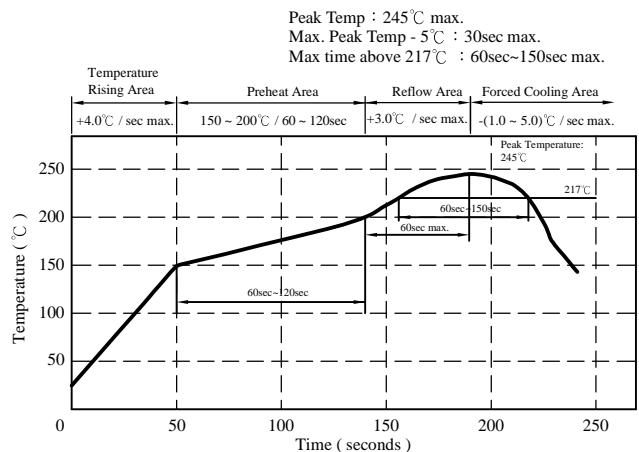


III . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : F · H class
- d . Product weight : 2.95g (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 Ω) max.	Ipeak (A) typ.	Irms (A) typ.	Inductance (μ H)	RDC (m Ω) max.	Ipeak (A) typ.	Irms (A) typ.
SF1258R47YF□-□□□	0.47 \pm 30%	5.3	33.00	17.60	1.824 \pm 30%	21.2	16.500	8.800
SF12581R0YF□-□□□	1.00 \pm 30%	6.2	23.60	15.00	3.576 \pm 30%	26.0	11.800	7.510
SF12581R5YF□-□□□	1.50 \pm 30%	7.3	18.30	13.80	5.912 \pm 30%	30.2	9.150	6.890
SF12582R2YF□-□□□	2.20 \pm 30%	8.5	15.00	10.90	8.832 \pm 30%	33.3	7.500	5.460
SF12583R3YF□-□□□	3.30 \pm 30%	10.1	12.70	9.26	12.340 \pm 30%	37.2	6.350	4.630
SF12584R7YF□-□□□	4.70 \pm 30%	13.7	9.71	7.18	21.100 \pm 30%	47.9	4.860	3.590
SF12586R8YF□-□□□	6.80 \pm 30%	18.6	8.68	6.64	26.350 \pm 30%	67.2	4.340	3.320
SF12588R2YF□-□□□	8.20 \pm 30%	19.4	7.86	5.54	32.190 \pm 30%	73.7	3.930	2.770
SF1258100MF□-□□□	10.00 \pm 20%	24.6	7.17	5.35	38.620 \pm 20%	93.4	3.590	2.670
SF1258150MF□-□□□	15.00 \pm 20%	32.9	5.69	4.27	61.400 \pm 20%	125.0	2.850	2.130
SF1258220MF□-□□□	22.00 \pm 20%	45.1	4.71	3.70	89.440 \pm 20%	172.0	2.360	1.840
SF1258330MF□-□□□	33.00 \pm 20%	61.8	3.84	3.28	135.000 \pm 20%	256.0	1.920	1.640
SF1258470MF□-□□□	47.00 \pm 20%	86.0	3.24	2.71	189.900 \pm 20%	340.0	1.620	1.350
SF1258680MF□-□□□	68.00 \pm 20%	116.5	2.70	2.22	271.600 \pm 20%	444.0	1.350	1.110
SF1258820MF□-□□□	82.00 \pm 20%	150.0	2.39	2.05	347.600 \pm 20%	568.0	1.200	1.030
SF1258101MF□-□□□	100.00 \pm 20%	171.3	2.20	1.78	410.800 \pm 20%	656.0	1.100	0.892
SF1258151MF□-□□□	150.00 \pm 20%	253.8	1.81	1.48	604.400 \pm 20%	972.0	0.905	0.739
SF1258221MF□-□□□	220.00 \pm 20%	354.0	1.51	1.19	867.200 \pm 20%	1416.0	0.755	0.594
SF1258331MF□-□□□	330.00 \pm 20%	574.0	1.22	1.06	1330.000 \pm 20%	2290.0	0.610	0.530
SF1258471MF□-□□□	470.00 \pm 20%	830.0	1.02	0.87	1892.000 \pm 20%	3197.0	0.510	0.434
SF1258681MF□-□□□	680.00 \pm 20%	1212.0	0.85	0.70	2719.000 \pm 20%	4635.0	0.425	0.350
SF1258821MF□-□□□	820.00 \pm 20%	1460.0	0.77	0.60	3312.000 \pm 20%	5363.0	0.385	0.301
SF1258102MF□-□□□	1000.00 \pm 20%	1854.0	0.70	0.57	4032.000 \pm 20%	6782.0	0.350	0.283

- 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 $\Delta L/L0A = 30\%$ typ.

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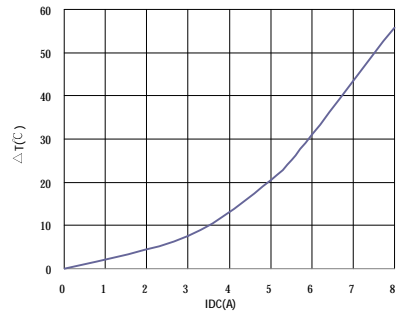
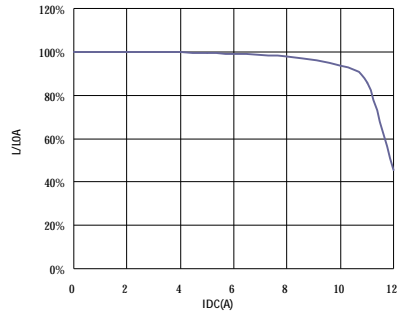
SPECIFICATION FOR APPROVAL

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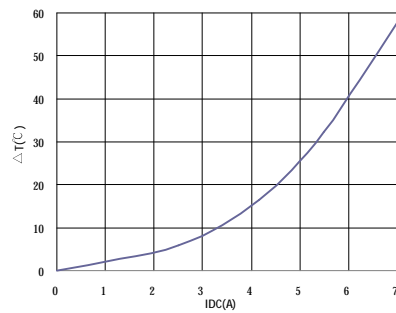
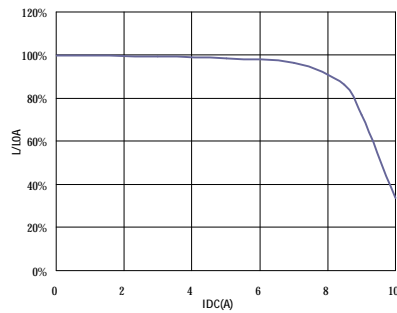
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VI . Curve :

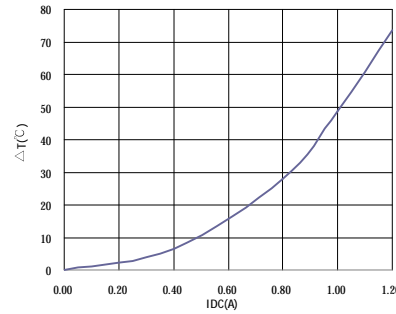
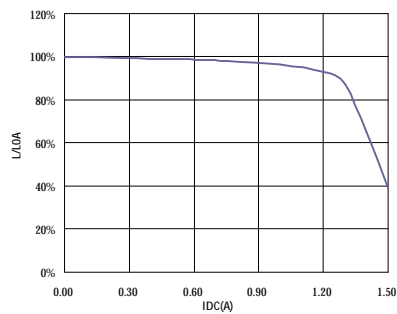
SF12586R8YF□



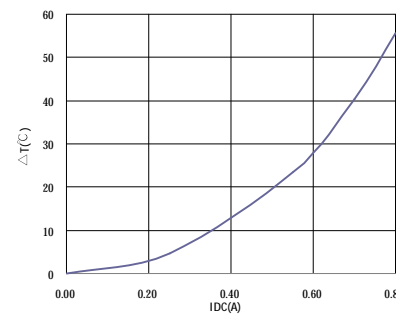
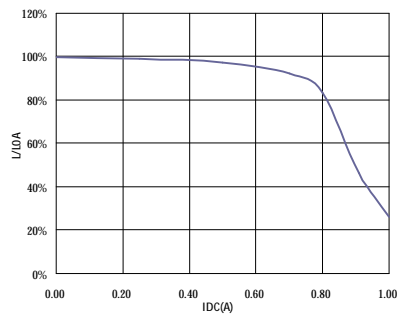
SF1258100MF□



SF1258471MF□



SF1258102MF□



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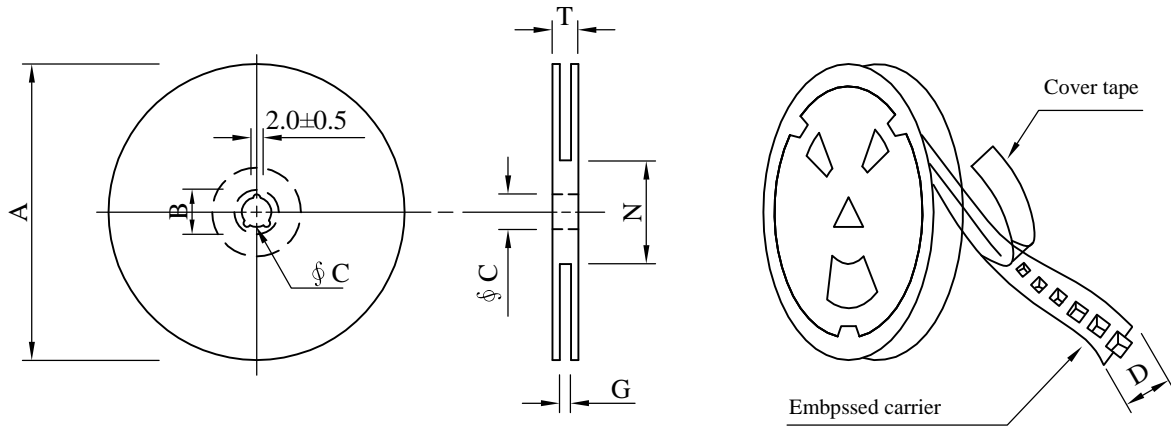
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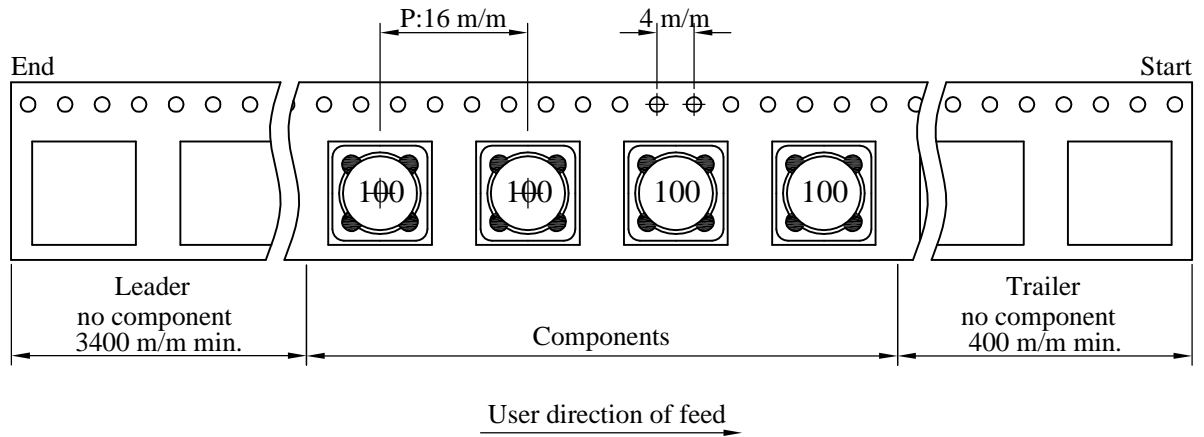
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VII . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	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	1520	13 - 24	1,600	7.3	38 x 37 x 22

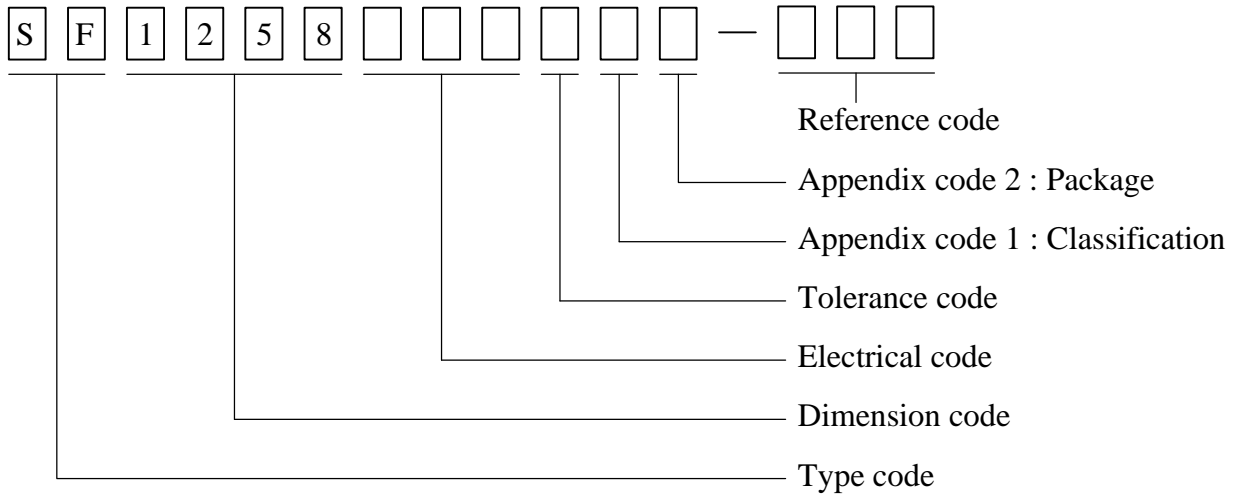
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VII . Drawing number expression :



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 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 : 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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