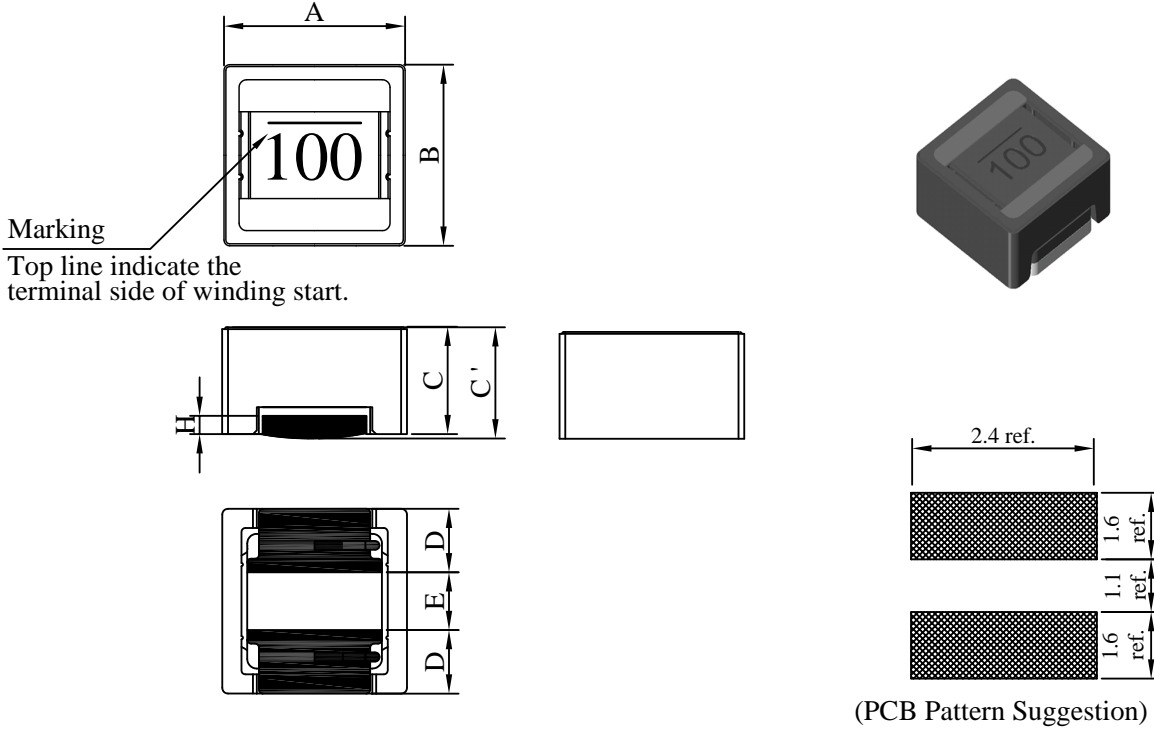


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS3828□□□□L□-□□□		
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I . Configuration and dimensions :



(PCB Pattern Suggestion)

Unit : m/m

A	B	C	C'	D	E	H
3.80±0.30	3.80±0.30	2.80±0.20	3.20 max.	1.30±0.20	1.20±0.20	0.50±0.20

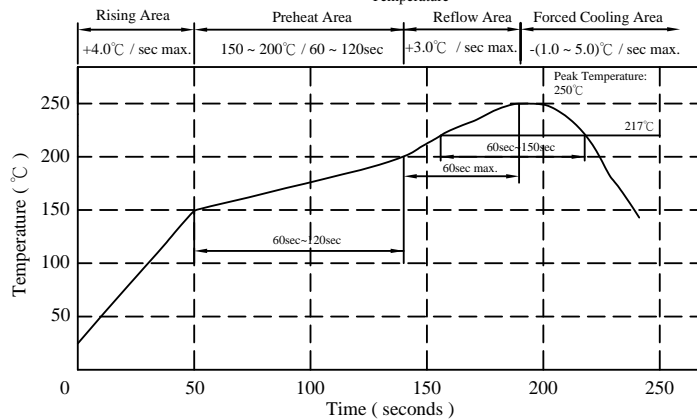
II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 0.18g (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

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

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 : 250°C . 10 secs.



SPECIFICATION FOR APPROVAL

REF. :

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IV . Electrical characteristics :

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
			typ.	max.		
QS38283R3YLB-□□□	3.30 \pm 30%	64.0	37.00	48.00	1.700	2.500
QS38284R7YLB-□□□	4.70 \pm 30%	55.0	51.00	66.00	1.480	2.400
QS38286R8YLB-□□□	6.80 \pm 30%	36.0	86.10	110.0	1.160	1.600
QS3828100MLB-□□□	10.0 \pm 20%	27.0	120.0	154.0	0.950	1.500
QS3828150MLB-□□□	15.0 \pm 20%	23.0	160.0	200.0	0.800	1.300
QS3828220MLB-□□□	22.0 \pm 20%	20.0	265.0	330.0	0.680	1.000
QS3828330MLB-□□□	33.0 \pm 20%	19.0	392.0	490.0	0.540	0.700
QS3828470MLB-□□□	47.0 \pm 20%	12.0	475.0	595.0	0.450	0.650
QS3828680MLB-□□□	68.0 \pm 20%	9.0	633.0	790.0	0.380	0.550
QS3828101MLB-□□□	100.0 \pm 20%	8.0	956.0	1150.0	0.320	0.480

- 1). □: Packaging information □: Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance Test Condition. : 100KHz / 0.1V
- 5). Isat base on $\Delta L / L0A=35\%$ typ.(Approximately transient current)
- 6). Irms base on Temp. rise 40°C typ.

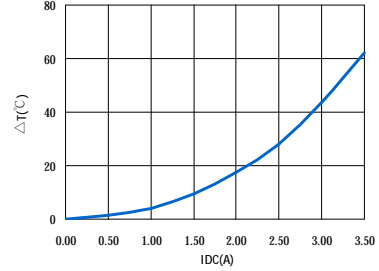
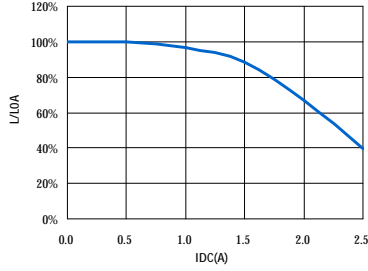
SPECIFICATION FOR APPROVAL

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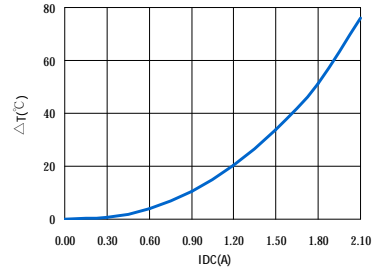
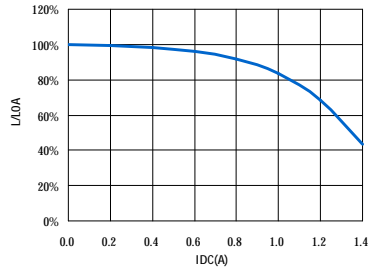
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS3828□□□□L□-□□□		
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V . Curve :

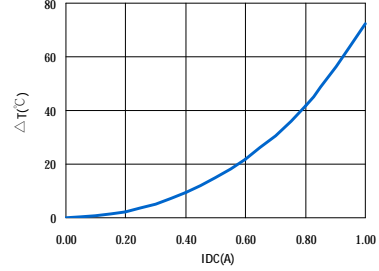
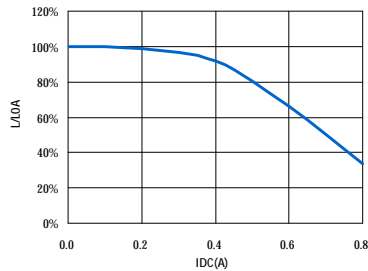
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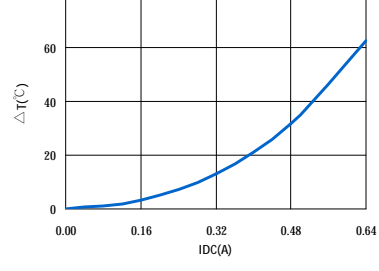
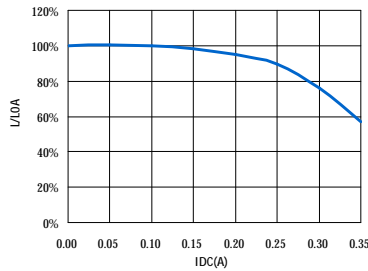
QS3828100MLB



QS3828330MLB



QS3828101MLB



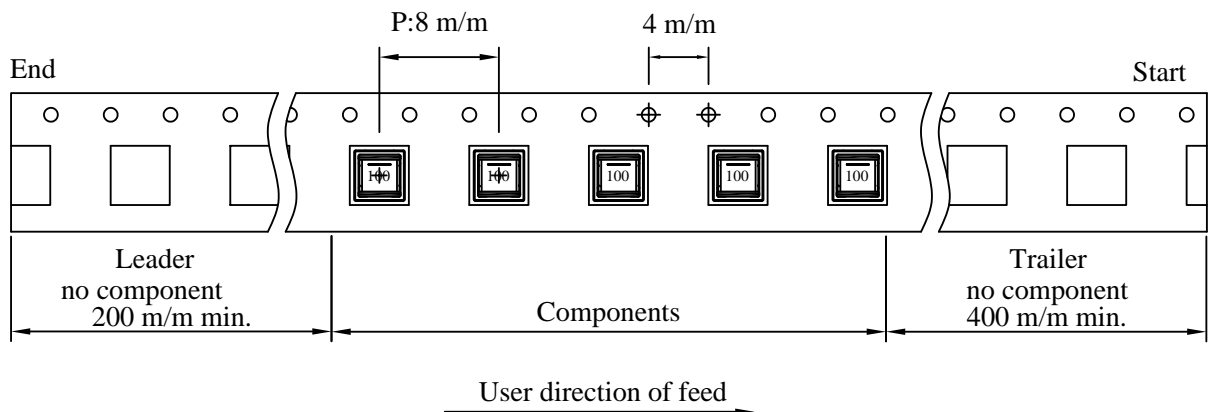
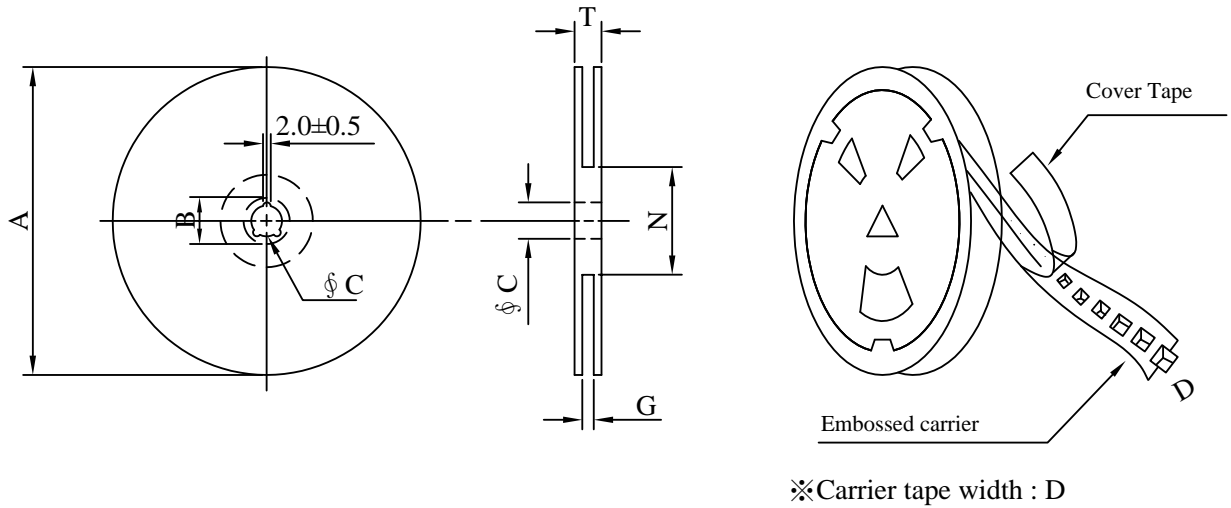
SPECIFICATION FOR APPROVAL

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VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 12	178	21±0.8	13	12	14 ⁺⁰	50 ⁻⁰	16.5
13 - 12	330	21±0.8	13±0.5	12	14 ⁺⁰	50 ⁻⁰	18.4

(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	500	200	07 - 12	20,000	9.2	42 x 41 x 24
C	2500	807	13 - 12	20,000	7.7	38 x 37 x 22

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS3828□□□□L□-□□□		
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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 cycle 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 Amplitued : 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 Second. 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°C typ.
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 the height of 1m 2.Drop total times : 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.

AR-001C

