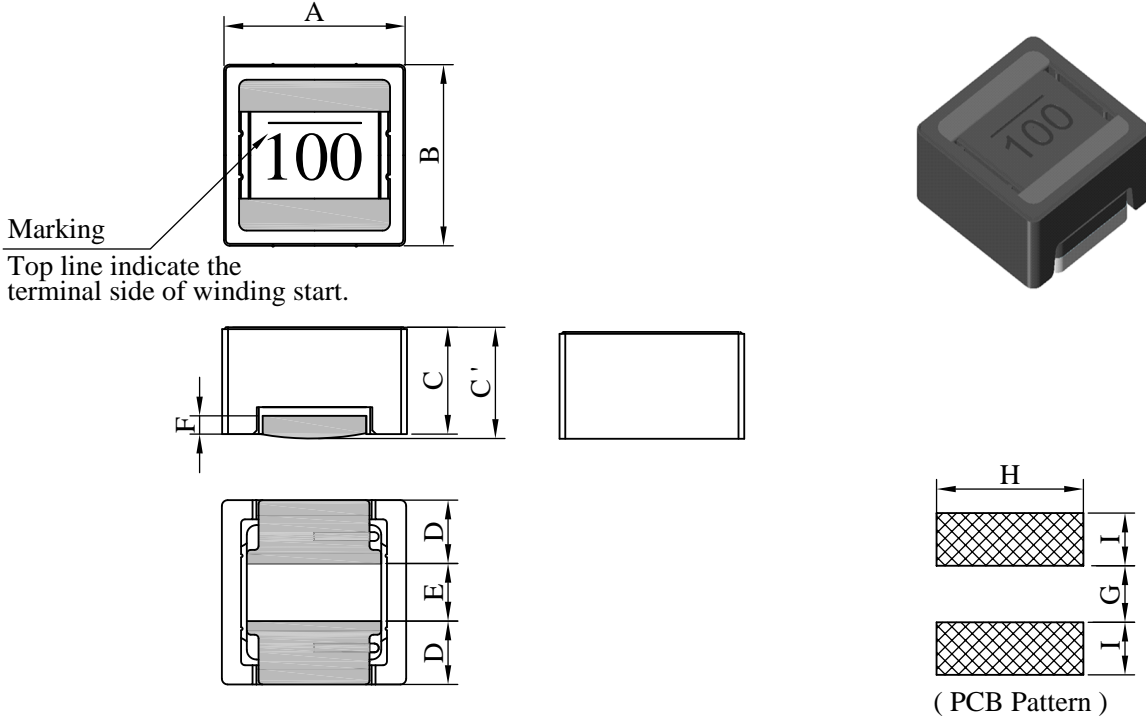


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	1

I . Configuration and dimensions :



Unit : m/m

A	B	C	C'	D	E	F	G	H	I
6.80 ±0.30	6.80 ±0.30	2.80 ±0.20	3.20 max.	2.10 typ.	2.60 typ.	0.30 min.	2.20 ref.	5.45 ref.	2.50 ref.

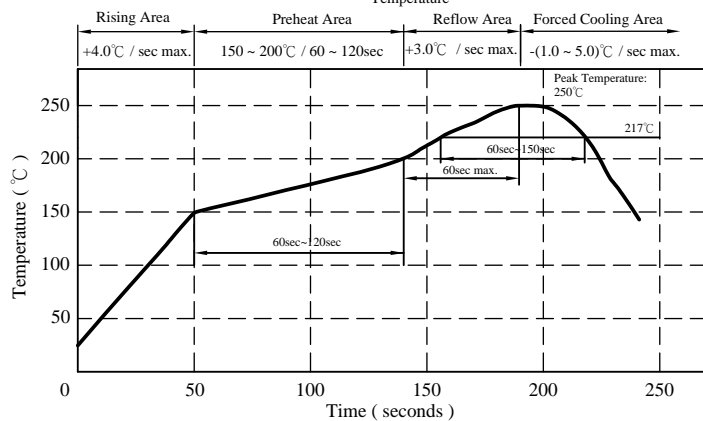
II . Description :

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 0.505g (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. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	2

IV . Electrical characteristics :

DWG No.	Inductance (μ H)	SRF (MHz) typ.	RDC (m Ω)		Isat (A) typ.	Irms (A) typ.
			typ.	max.		
QS68282R5YL□-□□□	2.5 \pm 30%	77.0	23.0	30.0	3.400	4.900
QS68283R3YL□-□□□	3.3 \pm 30%	63.0	25.0	33.0	3.000	4.700
QS68284R3YL□-□□□	4.3 \pm 30%	55.0	33.0	43.0	2.600	4.000
QS68285R0YL□-□□□	5.0 \pm 30%	48.0	38.0	48.0	2.300	3.800
QS68286R4YL□-□□□	6.4 \pm 30%	42.0	46.0	60.0	2.100	3.400
QS68287R7YL□-□□□	7.7 \pm 30%	37.0	54.0	70.0	1.900	3.200
QS6828100ML□-□□□	10.0 \pm 20%	33.0	64.0	84.0	1.750	2.900
QS6828150ML□-□□□	15.0 \pm 20%	24.0	113.0	145.0	1.400	2.200
QS6828220ML□-□□□	22.0 \pm 20%	20.0	141.0	180.0	1.150	2.000
QS6828330ML□-□□□	33.0 \pm 20%	15.0	170.0	205.0	0.920	1.800
QS6828470ML□-□□□	47.0 \pm 20%	13.0	240.0	290.0	0.800	1.400
QS6828680ML□-□□□	68.0 \pm 20%	10.0	340.0	410.0	0.670	1.200
QS6828101ML□-□□□	100.0 \pm 20%	8.0	460.0	555.0	0.550	1.000
QS6828151ML□-□□□	150.0 \pm 20%	6.0	740.0	890.0	0.440	0.800
QS6828221ML□-□□□	220.0 \pm 20%	5.5	1057.0	1200.0	0.360	0.600
QS6828331ML□-□□□	330.0 \pm 20%	4.5	1510.0	1740.0	0.300	0.550
QS6828471ML□-□□□	470.0 \pm 20%	3.5	2210.0	2540.0	0.250	0.450
QS6828681ML□-□□□	680.0 \pm 20%	3.0	3180.0	3560.0	0.210	0.350
QS6828102ML□-□□□	1000.0 \pm 20%	2.5	4070.0	4480.0	0.170	0.300

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

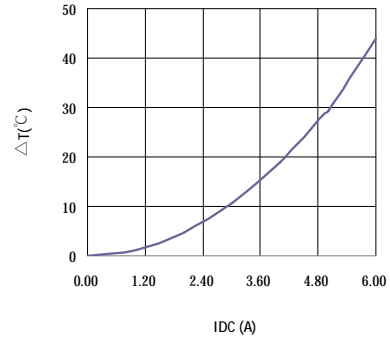
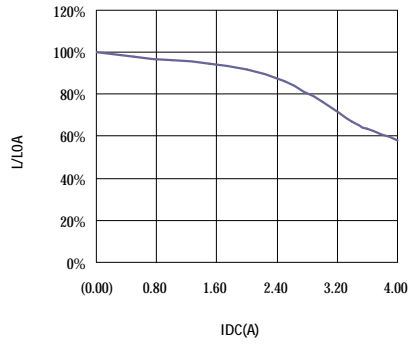
SPECIFICATION FOR APPROVAL

REF. :

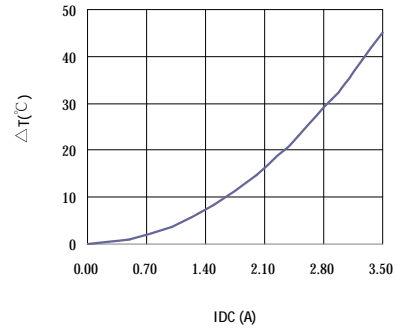
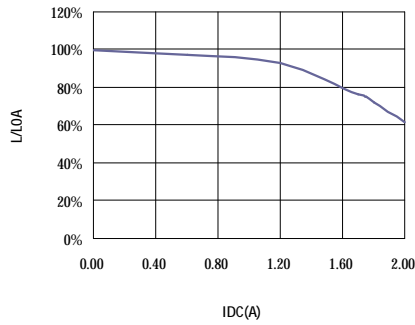
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	3

V . Curve :

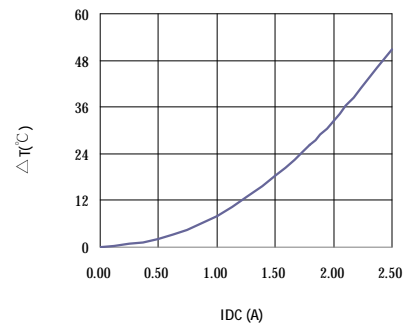
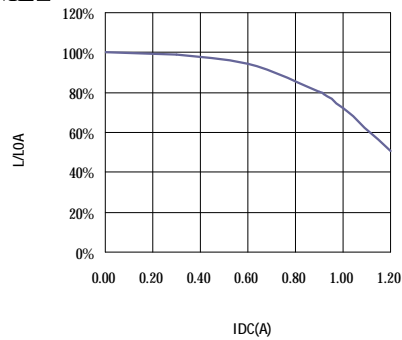
QS68282R5YL□



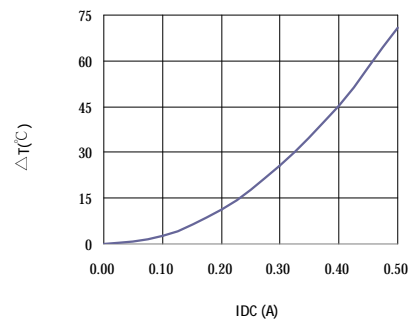
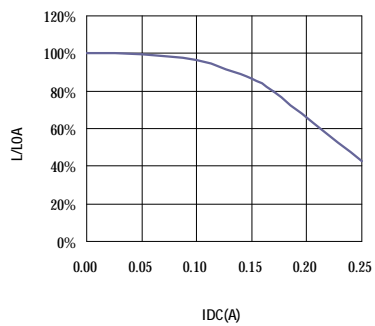
QS6828100ML□



QS6828330ML□



QS6828102ML□



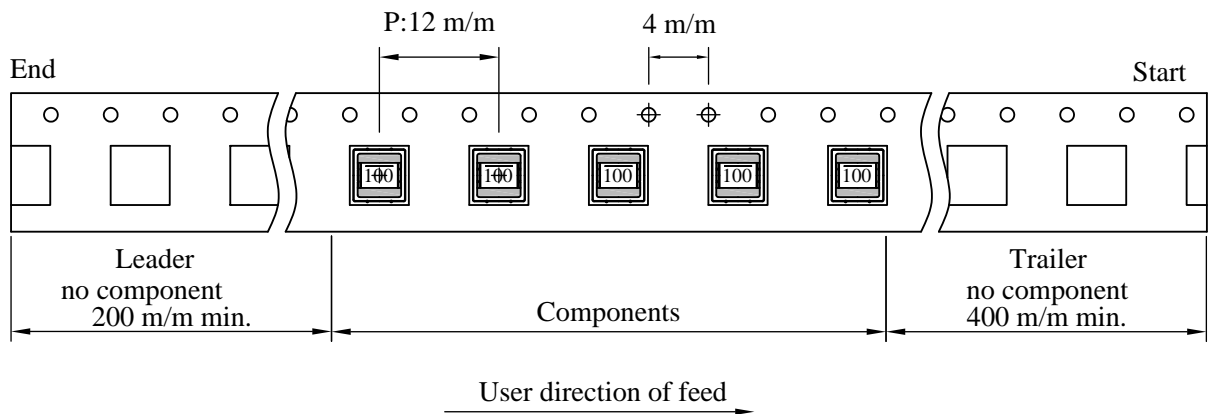
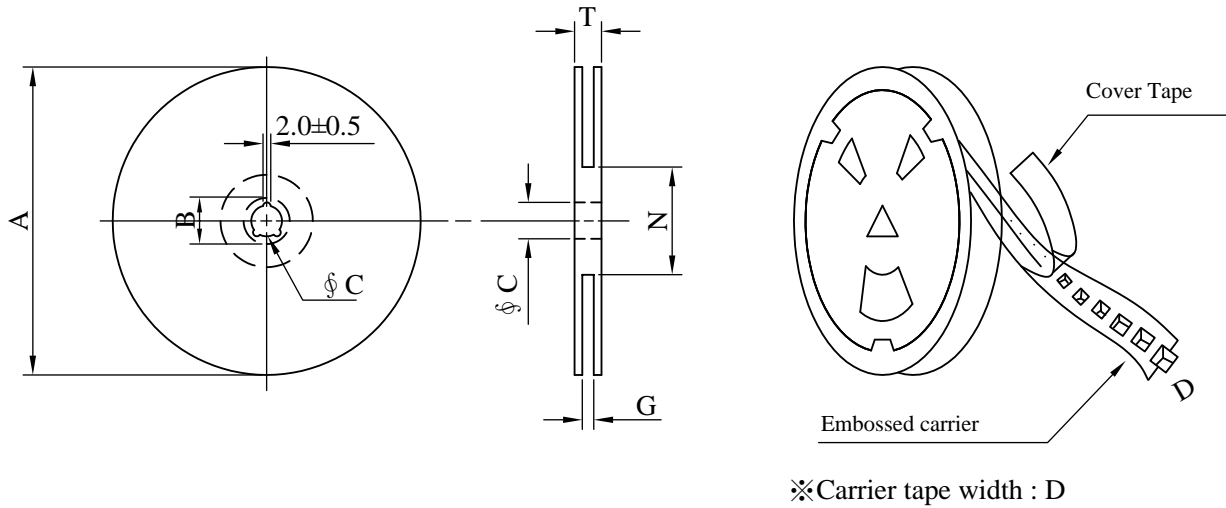
SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	4

VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18 ⁺⁰	50 ⁻⁰	22.4

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

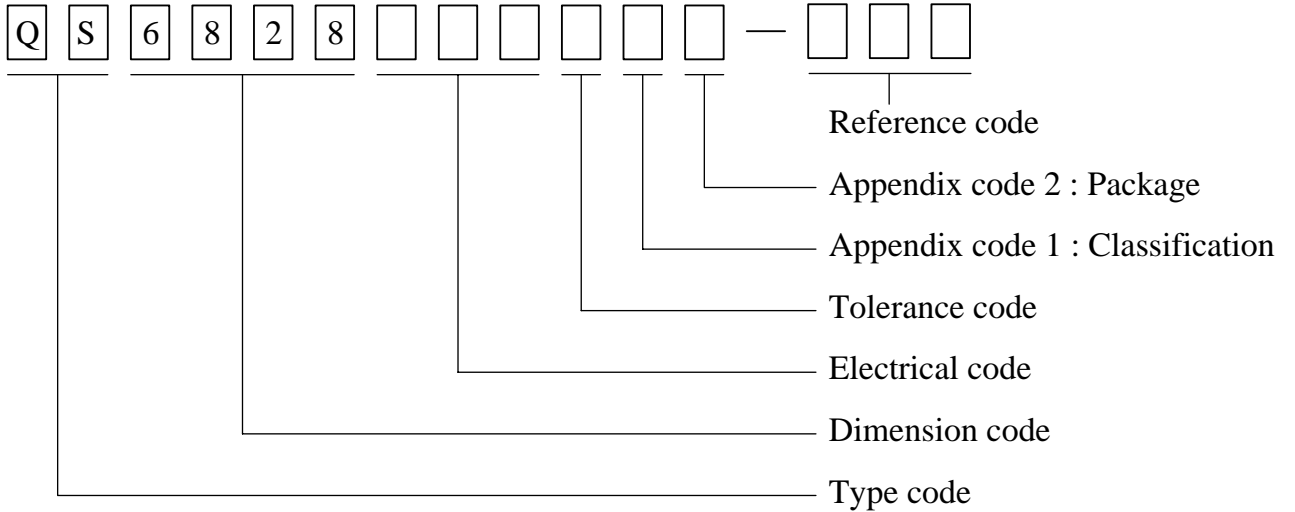
Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
B	1500	1250	13 - 16	9000	8.8	38 x 37 x 22

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	5

VII . Dwging number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrie tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	UCT	Non-antistatic	Antistatic	1,500 pcs	

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	6

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

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	QS6828□□□□L□-□□□		
		REV.	20161117-A	PAGE	7

IX . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20161117-A	Released	Qiang Xiao	Jian Li	Lock