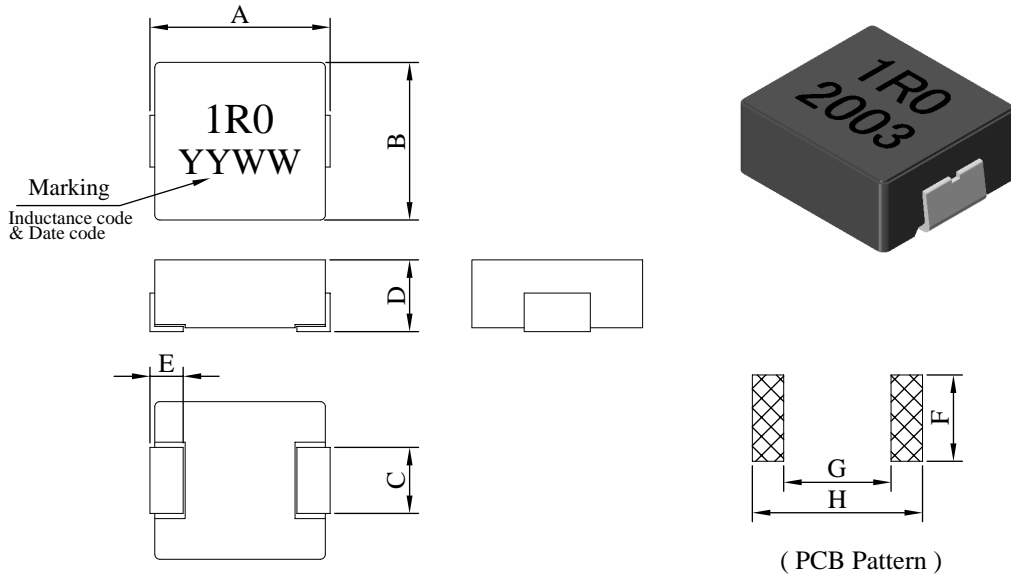


# SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.		GSSM0630□□□□2□U		
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## I . Configuration and dimensions :



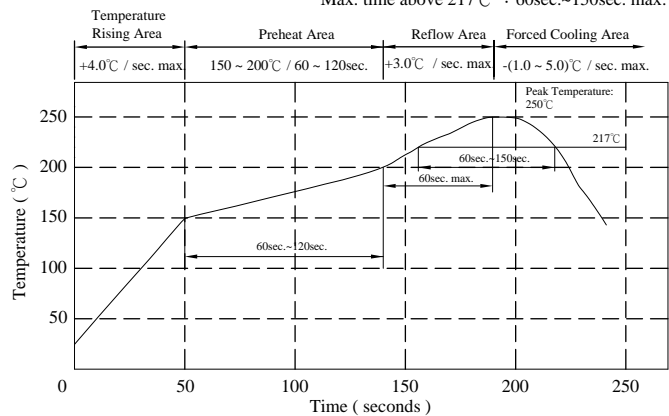
Unit : mm

A	B	C	D	E	F	G	H
7.30 ±0.30	6.60 ±0.30	3.00 ±0.3	2.80 ±0.2	1.80 ±0.3	3.50 ref.	2.50 ref.	8.40 ref.

## II . Description :

- a . Powder molding construction
- b . Magnetically shielded
- c . Wire : Polyester wire or equivalent
- d . Products comply with RoHS' requirements
- e . 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

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0630□□□□2□U		
		REV.	20201105-A	PAGE	2

IV . Electrical characteristics :

DWG No.	Inductance ( $\mu$ H)	Isat ( A ) typ.	Irms ( A ) typ.	RDC ( m $\Omega$ )	
				max.	typ.
GSSM0630R10Y2AU	0.10 $\pm$ 30%	60.00	32.50	1.70	1.20
GSSM0630R13Y2AU	0.13 $\pm$ 30%	50.00	27.60	1.80	1.30
GSSM0630R15Y2AU	0.15 $\pm$ 30%	45.00	27.00	1.90	1.50
GSSM0630R16Y2AU	0.16 $\pm$ 30%	45.00	27.00	1.90	1.50
GSSM0630R18Y2AU	0.18 $\pm$ 30%	43.00	25.00	2.30	1.70
GSSM0630R19Y2AU	0.19 $\pm$ 30%	41.00	24.00	2.50	1.80
GSSM0630R20Y2AU	0.20 $\pm$ 30%	41.00	24.00	2.50	1.80
GSSM0630R22Y2AU	0.22 $\pm$ 30%	40.00	23.00	2.80	2.10
GSSM0630R24M2AU	0.24 $\pm$ 20%	39.00	22.00	3.10	2.50
GSSM0630R25M2AU	0.25 $\pm$ 20%	39.00	21.00	3.50	3.30
GSSM0630R30M2AU	0.30 $\pm$ 20%	35.00	21.00	3.80	3.20
GSSM0630R33M2AU	0.33 $\pm$ 20%	32.00	20.00	3.90	3.50
GSSM0630R36M2AU	0.36 $\pm$ 20%	32.00	19.00	4.20	3.60
GSSM0630R40M2AU	0.40 $\pm$ 20%	27.50	18.00	4.10	3.71
GSSM0630R47M2AU	0.47 $\pm$ 20%	26.00	17.50	4.20	4.00
GSSM0630R56M2AU	0.56 $\pm$ 20%	25.50	16.50	5.00	4.70
GSSM0630R60M2AU	0.60 $\pm$ 20%	25.50	16.00	5.20	4.70
GSSM0630R68M2AU	0.68 $\pm$ 20%	25.00	15.50	5.50	4.80
GSSM0630R75M2AU	0.75 $\pm$ 20%	24.50	14.50	6.60	5.50
GSSM0630R82M2AU	0.82 $\pm$ 20%	24.00	13.00	8.00	6.70
GSSM0630R90M2AU	0.90 $\pm$ 20%	22.00	11.00	10.00	8.30
GSSM06301R0M2AU	1.00 $\pm$ 20%	22.00	11.00	10.00	8.30

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# SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0630□□□□2□U		
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IV . Electrical characteristics :

DWG No.	Inductance ( μH )	Isat ( A ) typ.	Irms ( A ) typ.	RDC ( mΩ )	
				max.	typ.
GSSM06301R2M2AU	1.20 ± 20%	20.00	10.00	12.00	10.00
GSSM06301R5M2AU	1.50 ± 20%	18.00	9.00	15.00	13.00
GSSM06301R8M2AU	1.80 ± 20%	16.00	8.50	17.00	14.00
GSSM06302R0M2AU	2.00 ± 20%	15.00	8.20	19.00	16.00
GSSM06302R2M2AU	2.20 ± 20%	14.00	8.00	20.00	18.00
GSSM06302R5M2AU	2.50 ± 20%	13.00	7.00	22.00	20.00
GSSM06302R7M2AU	2.70 ± 20%	13.00	7.00	27.00	24.00
GSSM06303R3M2AU	3.30 ± 20%	13.50	6.00	30.00	28.00
GSSM06304R7M2AU	4.70 ± 20%	10.00	5.50	40.00	37.00
GSSM06305R6M2AU	5.60 ± 20%	9.00	5.00	48.00	43.00
GSSM06306R8M2AU	6.80 ± 20%	8.00	4.50	60.00	54.00
GSSM06308R2M2AU	8.20 ± 20%	7.50	4.00	68.00	64.00
GSSM0630100M2AU	10.00 ± 20%	6.00	3.50	85.00	75.00
GSSM0630120M2AU	12.00 ± 20%	5.50	3.30	93.00	81.00
GSSM0630150M2AU	15.00 ± 20%	4.00	3.00	123.00	107.00
GSSM0630180M2AU	18.00 ± 20%	4.00	2.50	160.00	140.00
GSSM0630220M2AU	22.00 ± 20%	3.50	2.00	190.00	165.00
GSSM0630270M2AU	27.00 ± 20%	3.00	2.00	220.00	185.00
GSSM0630330M2AU	33.00 ± 20%	2.50	2.00	240.00	200.00
GSSM0630400M2AU	40.00 ± 20%	2.30	1.90	340.00	283.00
GSSM0630470M2AU	47.00 ± 20%	2.00	1.75	363.00	302.00

- 1). Electrical specifications at 25°C
- 2). Measured frequency of inductance is 100 KHz / 1V
- 3). Isat base on  $\Delta L/L0A = 30\%$  typ. (Approximately transient current)
- 4). Irms base on Temp. rise 40°C typ.

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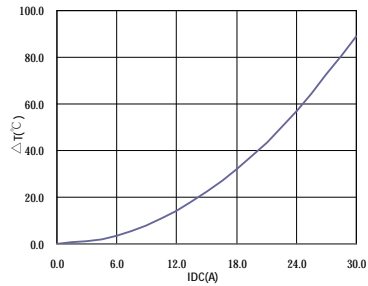
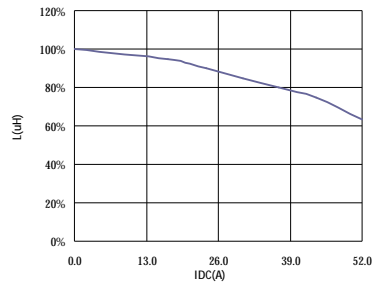
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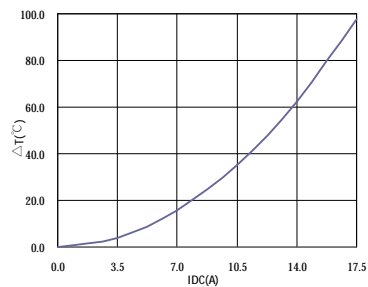
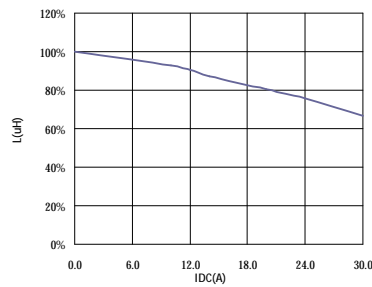
PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0630□□□□2□U		
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V . Curve :

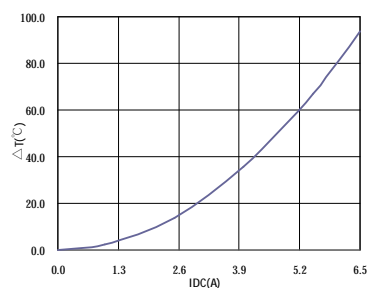
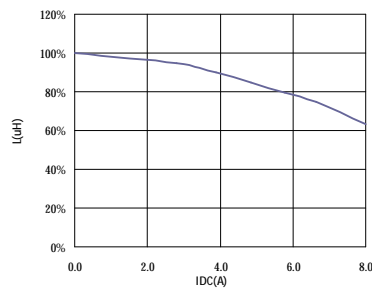
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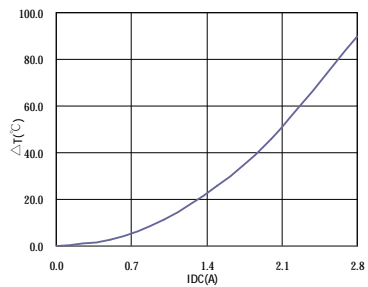
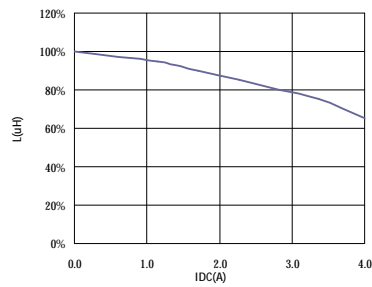
**GSSM06301R0M2AU**



**GSSM0630100M2AU**



**GSSM0630470M2AU**



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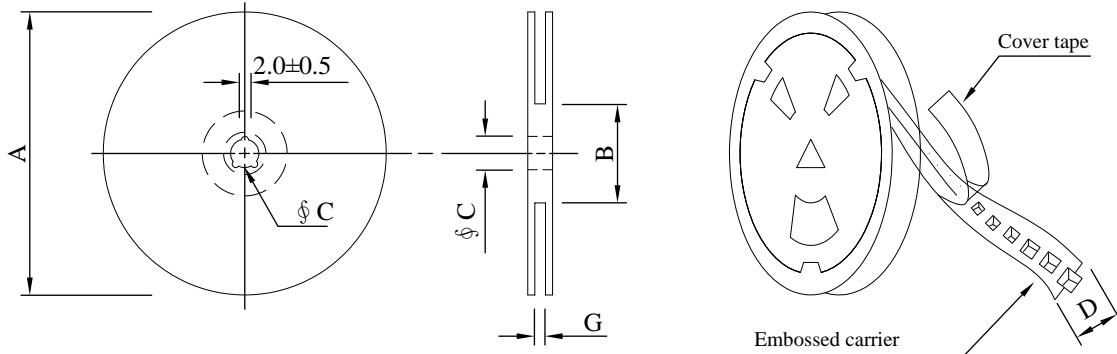
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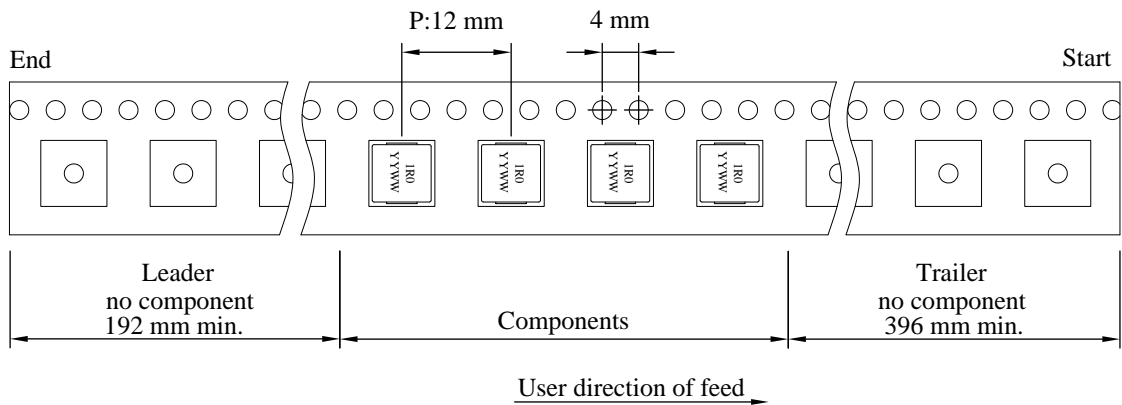
PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.		GSSM0630□□□□2□U	
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## VI . Packaging information :

### ( 1 ) Configuration



※Carrier tape width : D



### ( 2 ) Dimensions

Unit:mm

Style	A	B	C	D	G
13 - 16	330	100 ±0.2	13 <sup>+0.5</sup> <sub>-0.2</sub>	16	16.4 <sup>+2</sup> <sub>-0</sub>

### ( 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)
A	1,000	1,100	13 - 16	12,000	18.0	38 x 37 x 22

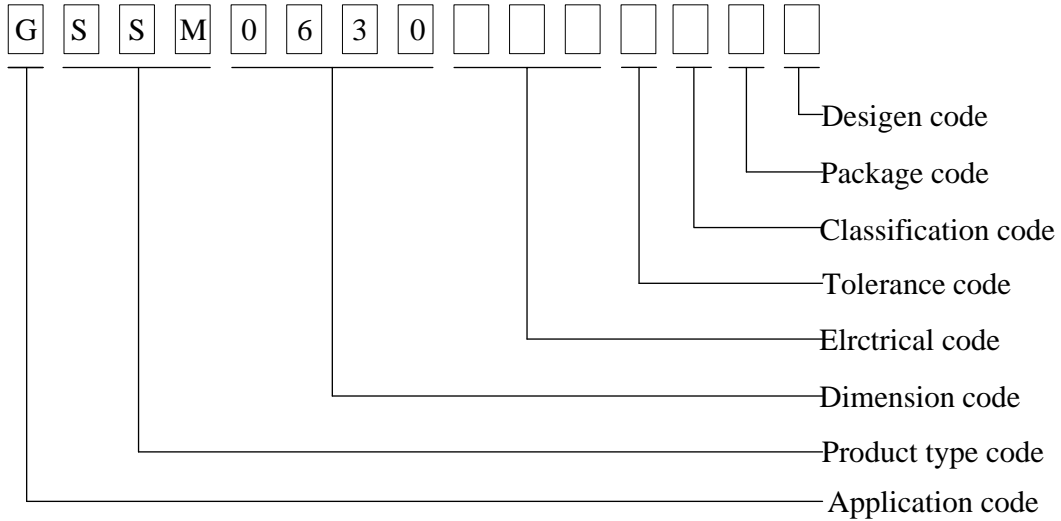
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REF :

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VII. Drawing number expression :



Package Information

Code	Inner package	Inner package Q'TY	Remark
A	T / R ( Reel package )	1,000 PCS	

# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0630□□□□2□U		
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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 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 ℃ 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 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℃. 2.Time (temp. ≥ 217℃) : 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 second. 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 second. 4.IR reflow times : 1 times.	More than 95% soldering coverage min on terminations.
14.Electrical Characterization	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 time (Every side of sample drop 2 time)	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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