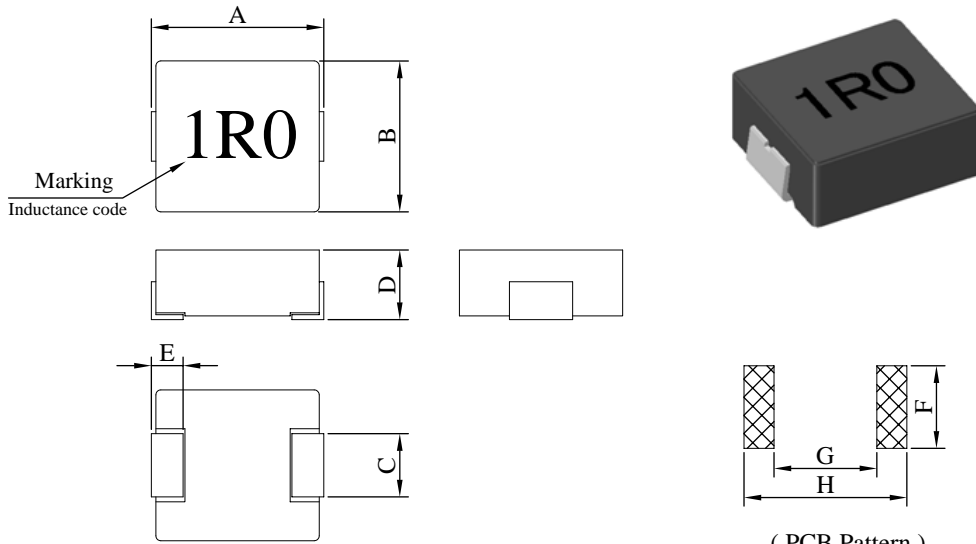


SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.		GSSM0420□□□□2□U	
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I . Configuration and dimensions :



(PCB Pattern) Unit : mm

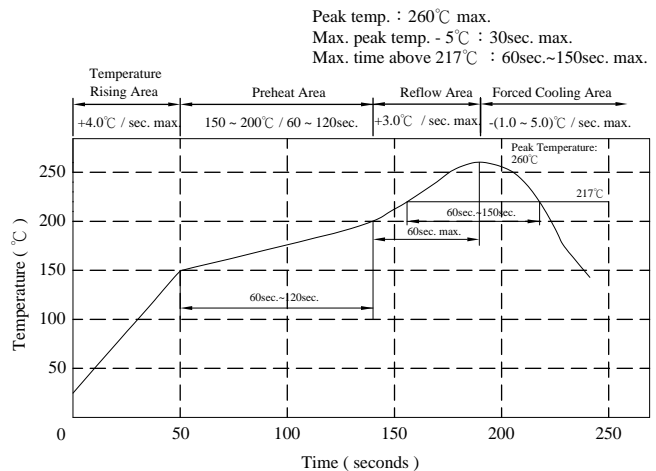
A	B	C	D	E	F	G	H
4.45 ±0.25	4.06 ±0.25	2.00 ±0.2	1.80 ±0.2	0.76 ±0.3	2.30 ref.	2.20 ref.	5.20 ref.

II . Description :

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

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.	GSSM0420□□□□2□U		
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IV . Electrical characteristics :

DWG No.	Inductance (μH)	Isat (A) typ.	Irms (A) typ.	RDC (mΩ)	
				max.	typ.
GSSM0420R10Y2AU	0.10 ± 30%	35.00	14.00	4.0	3.2
GSSM0420R12Y2AU	0.12 ± 30%	33.00	13.00	4.7	4.0
GSSM0420R15Y2AU	0.15 ± 30%	31.00	14.00	5.0	4.2
GSSM0420R18Y2AU	0.18 ± 30%	28.00	13.50	5.4	4.6
GSSM0420R22Y2AU	0.22 ± 30%	24.00	13.00	7.3	6.6
GSSM0420R24Y2AU	0.24 ± 20%	23.00	12.00	7.6	6.9
GSSM0420R33M2AU	0.33 ± 20%	18.00	10.00	8.6	7.8
GSSM0420R36M2AU	0.36 ± 20%	15.00	9.00	12.0	8.7
GSSM0420R47M2AU	0.47 ± 20%	12.00	8.00	14.0	11.2
GSSM0420R50M2AU	0.50 ± 20%	11.30	7.80	15.0	13.0
GSSM0420R56M2AU	0.56 ± 20%	10.00	7.30	16.0	13.5
GSSM0420R60M2AU	0.60 ± 20%	11.00	7.30	18.5	15.5
GSSM0420R68M2AU	0.68 ± 20%	10.00	7.00	19.0	16.0
GSSM0420R82M2AU	0.82 ± 20%	9.50	6.00	23.0	19.0
GSSM04201R0M2AU	1.00 ± 20%	8.50	5.00	27.0	22.0
GSSM04201R2M2AU	1.20 ± 20%	7.80	4.80	30.0	25.0
GSSM04201R5M2AU	1.50 ± 20%	7.00	4.50	42.0	34.8
GSSM04201R8M2AU	1.80 ± 20%	6.50	4.30	52.0	43.0
GSSM04202R2M2AU	2.20 ± 20%	6.00	4.00	61.0	51.0
GSSM04203R3M2AU	3.30 ± 20%	4.00	3.50	76.0	69.0
GSSM04203R6M2AU	3.60 ± 20%	3.80	3.10	90.0	75.0
GSSM04204R7M2AU	4.70 ± 20%	3.50	2.60	105.0	95.0
GSSM04205R6M2AU	5.60 ± 20%	3.00	2.20	125.0	112.0

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SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0420□□□□2□U		
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IV . Electrical characteristics :

DWG No.	Inductance (μH)	Isat (A) typ.	Irms (A) typ.	RDC (mΩ)	
				max.	typ.
GSSM04206R8M2AU	6.80 ± 20%	2.80	2.10	172.0	150.0
GSSM04208R2M2AU	8.20 ± 20%	2.50	2.00	180.0	158.0
GSSM0420100M2AU	10.00 ± 20%	2.30	1.80	243.0	215.0
GSSM0420120M2AU	12.00 ± 20%	2.10	1.65	330.0	275.0
GSSM0420150M2AU	15.00 ± 20%	1.90	1.50	374.0	325.0
GSSM0420200M2AU	20.00 ± 20%	1.70	1.30	480.0	435.0
GSSM0420220M2AU	22.00 ± 20%	1.40	1.20	500.0	470.0

- 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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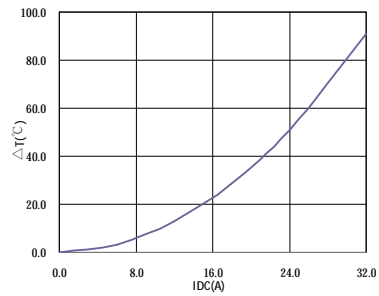
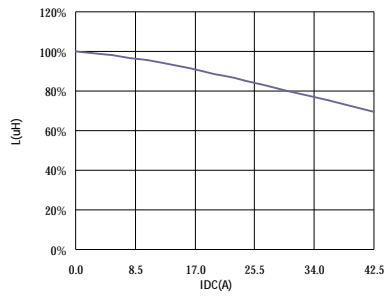
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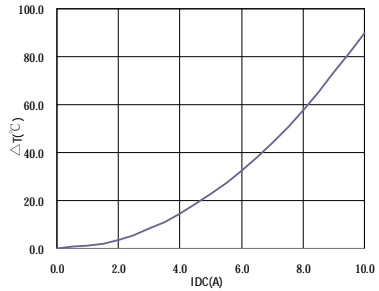
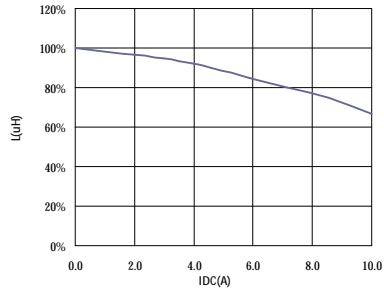
PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0420□□□□2□U		
		REV.	20201207-A	PAGE	4

V . Curve :

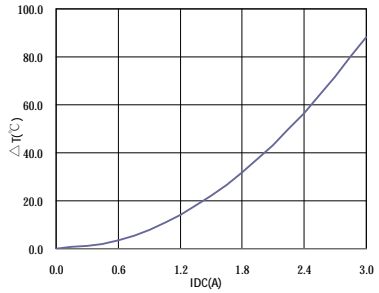
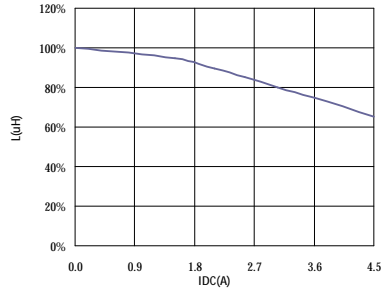
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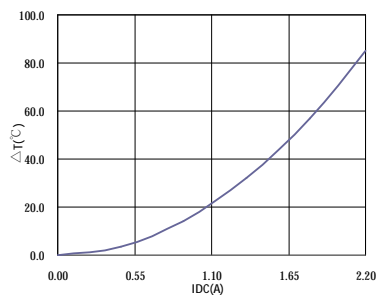
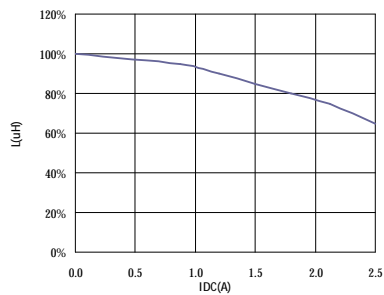
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GSSM0420100M2AU



GSSM0420220M2AU



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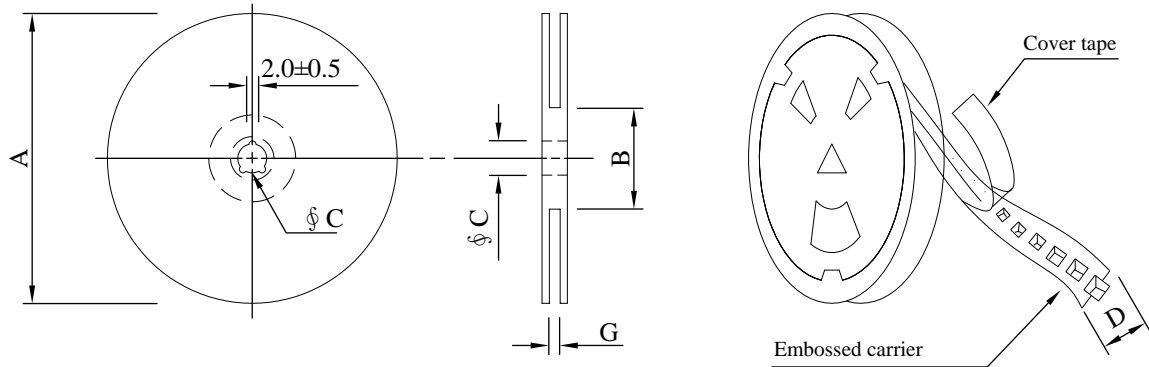
SPECIFICATION FOR APPROVAL

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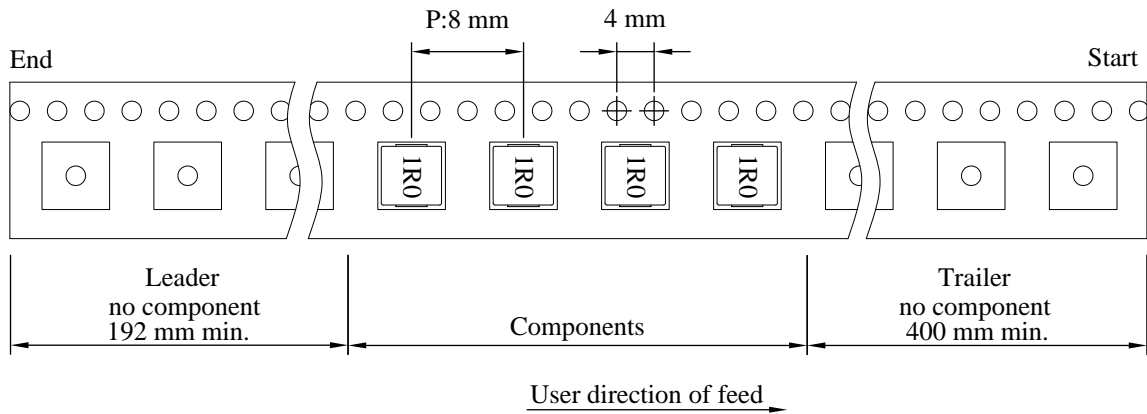
PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0420□□□□2□U		
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VI . Packaging information :

(1) Configuration



※Carrier tape width : D



(2) Dimensions

Unit:mm

Style	A	B	C	D	G
13 - 12	330	100 ±0.2	13 ^{+0.5} / _{-0.2}	12	12.4 ⁺² / ₋₀

(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	3,000	975	13 - 12	36,000	18.0	38 x 37 x 22

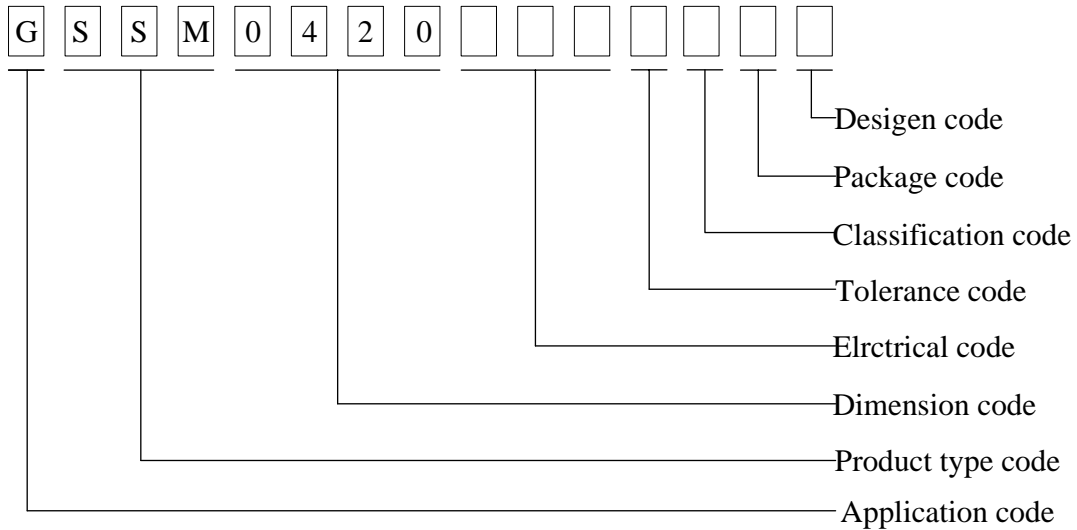
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SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0420□□□□2□U		
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VII . Drawing number expression :



Package Information

Code	Inner package	Inner package Q'TY	Remark
A	T / R (Reel package)	3,000 PCS	

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SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded Smd Power Inductor	ABC'S DWG NO.	GSSM0420□□□□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 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 apperarence. 2.No marking blurred. 3.Inductance shall not change more than ±20%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplituded : 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 : 260±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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