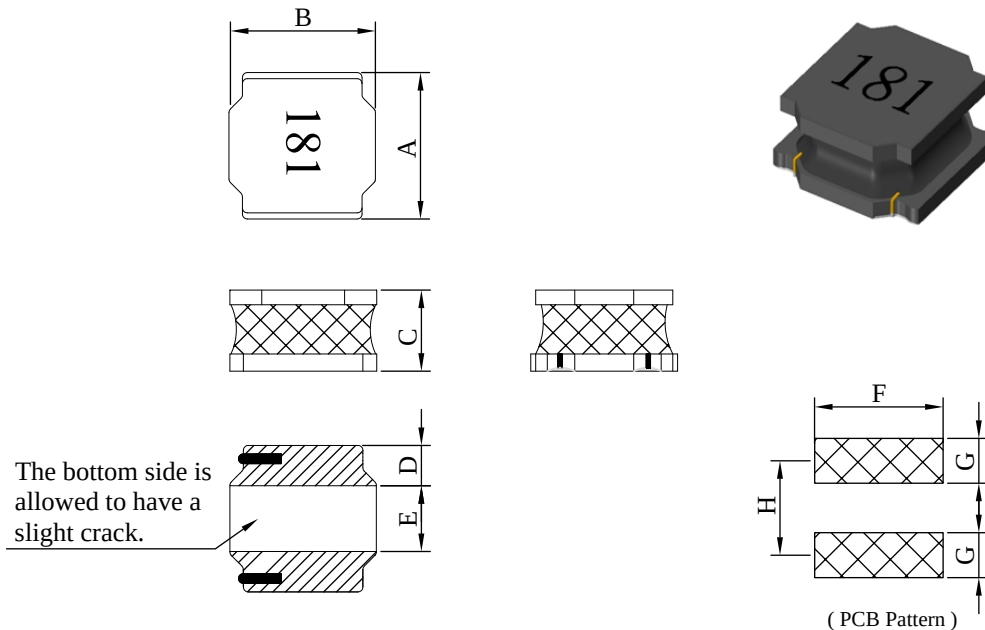


SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.		GSDE6045181MBAE		
		REV.	20210122-A	PAGE	1	

I . Configuration and dimensions :



Unit : mm

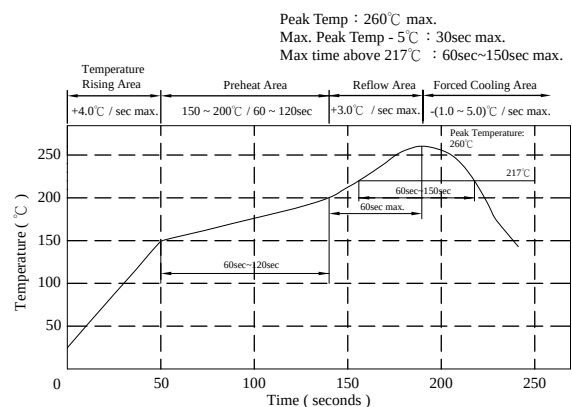
A	B	C	D	E	F	G	H
6.00 ±0.3	6.00 ±0.3	4.50 max.	1.65 ±0.3	2.70 ±0.3	5.70 ref.	1.60 ref.	4.70 ref.

II . Description :

- a . Ferrite drum core construction.
- b . Enamelled copper wire : H class
- c . Product weight : 0.55 g (ref.)
- d . Moisture sensitivity Level 1
- e . Products comply with RoHS' requirements
- f . Halogen free

III . General specification :

- a . Storage temp. : -25°C ----+85°C
- b . Operating temp. : -25°C ----+85°C
(Temp. rise included)
- c . Resistance to solder heat : 260°C .10 secs.



AR-001C

SPECIFICATION FOR APPROVAL

REF. :

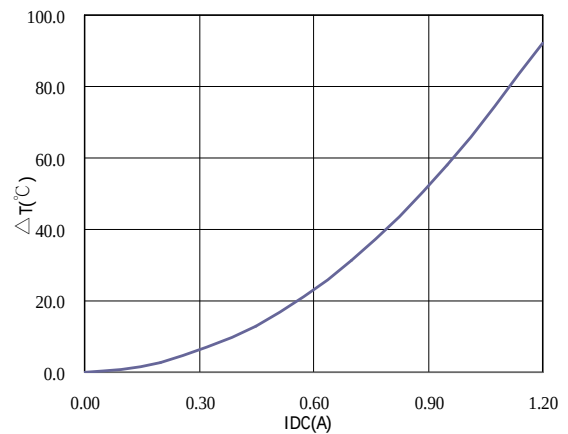
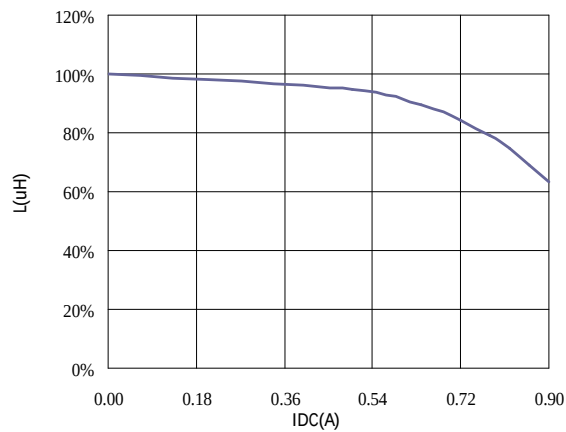
PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.		GSDE6045181MBAE		
		REV.	20210122-A	PAGE	2	

IV . Electrical characteristics :

DWG. No.	Inductance (μ H)	Test Freq. (Hz)	RDC ($m\Omega$) max.	Isat (A) max.	Irms (A) max.
GSDE6045181MBAE	180.0 $\pm$ 20%	100k/1V	950.0 $\pm$ 30%	0.50	0.50

- 1). Electrical specifications at 25°C
- 2). Isat base on $\Delta L/L_{0A}$ =30% max. (Approximately transient current)
- 3). Irms base on temp. rise 40°C max.

V . Curve :



AR-001C



千如電子集團
ABC-ATEC ELECTRONICS GROUP

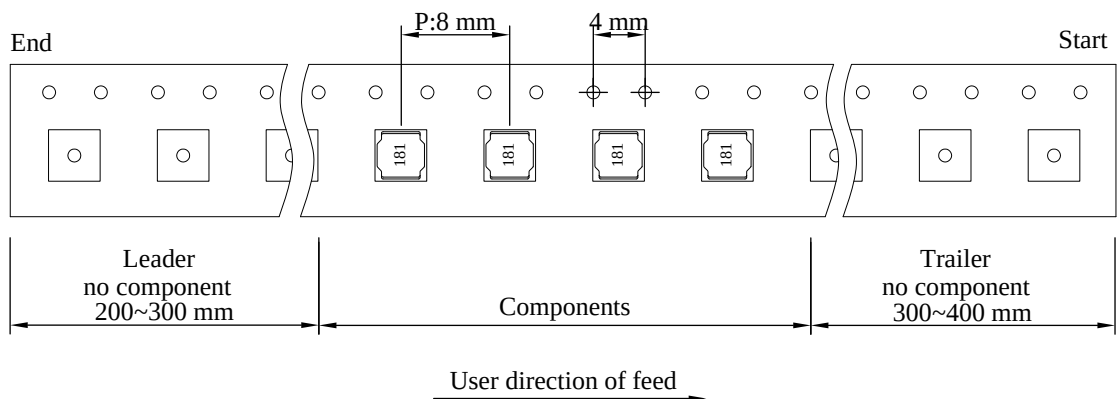
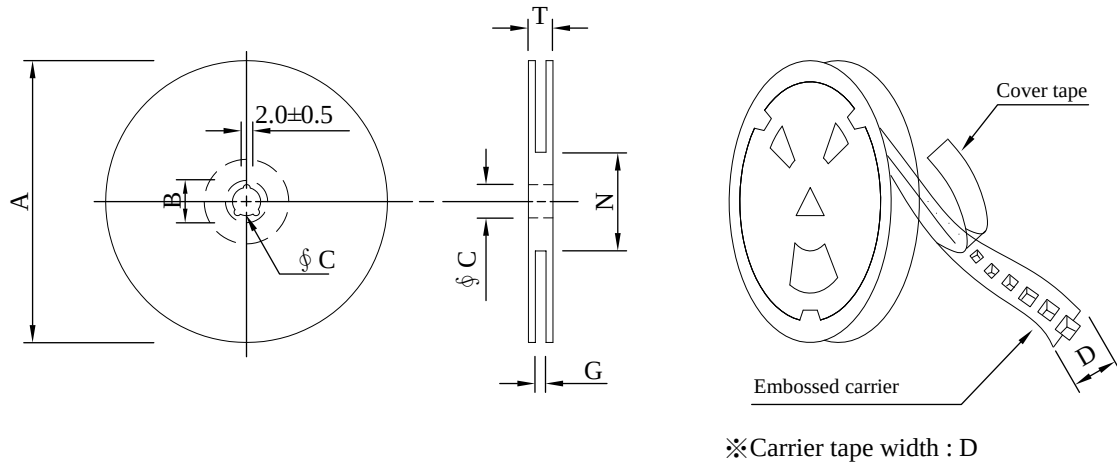
SPECIFICATION FOR APPROVAL

REF :

PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.		GSDE6045181MBAE		
		REV.	20210122-A	PAGE	3	

VI . Packaging information :

(1) Configuration



(2) Dimensions

Unit:mm

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

(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	1,500	1,350	13 - 16	13,500	12.50	36 x 36 x 25

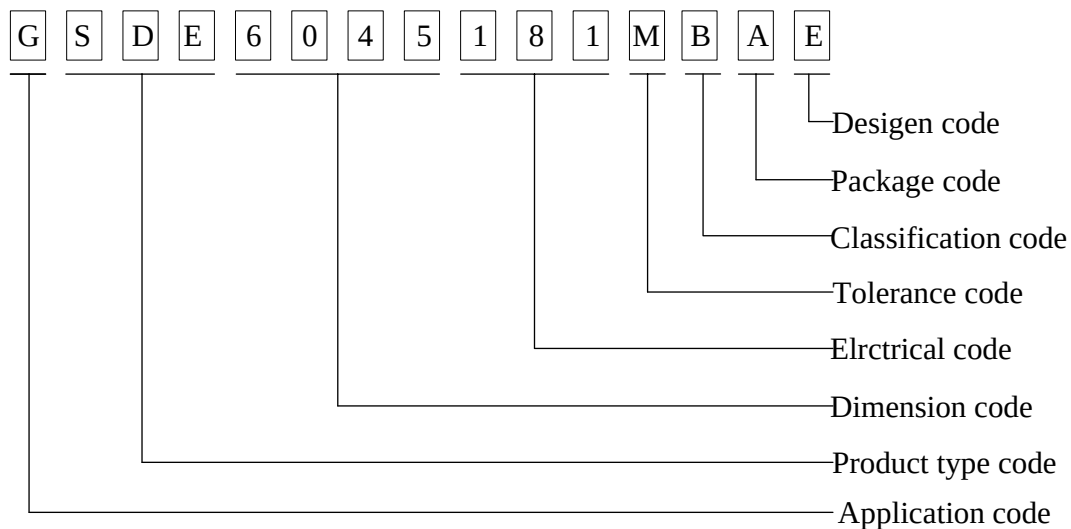
AR-001A

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.		GSDE6045181MBAE		
		REV.	20210122-A	PAGE	4	

VII . Drawing number expression :



Package Information

Code	Inner package	Inner package Q'TY	Remark
A	T / R (Reel package)	1,500 PCS	

AR-001C

SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Semi-shielded SMD Power Inductor	ABC'S DWG NO.		GSDE6045181MBAE		
		REV.	20210122-A	PAGE	5	
VIII . Reliability test :						
Item	Reference documents	Test Condition		Test Specification		
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature: 85±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: -25℃ ~ +85℃ 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: 85℃ (Temp. rise included) 2.Time:96±2 hours. 3.Rated current : 0.50 A		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. (marking side)		
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 apperance. 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 : 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% max.		
11.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current : 0.50 A		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 : 0.50 A		Surface temperature rise is less than 40℃ max.		
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 : -25℃~85℃ 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.		

AR-001C