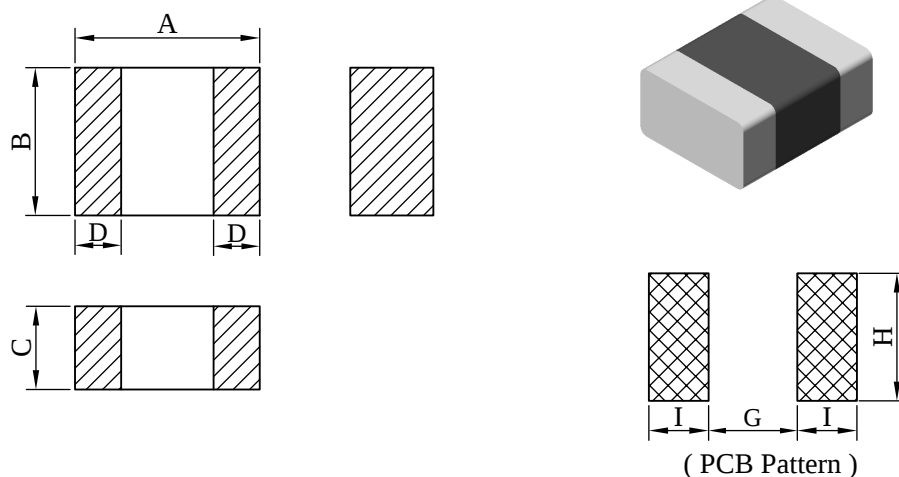


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I . Configuration and dimensions :



Unit : m/m

A	B	C	D	G	H	I
2.00 ±0.2	1.60 ±0.2	1.00 max.	0.50 ±0.3	0.90	1.60	0.55

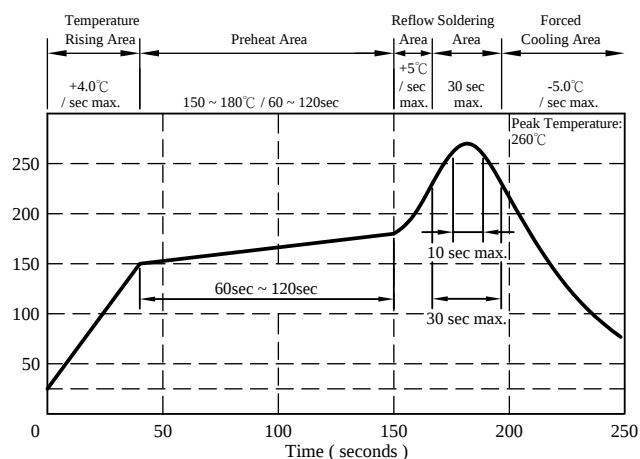
II . Description :

- a . Alloy powder
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 18 mg (ref.)
- e . Moisture sensitivity Level 1
- f . Products comply with RoHS' requirements
- g . Halogen free available

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 secs.

Peak Temp : 260°C max.
Soldering time above 230°C : 30sec max.
Max time for 260°C : 10sec max.



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IV . Electrical characteristics :

DWG No.	Inductance (μ H)	RDC (m Ω) max.	Isat (A)		Irms (A)	
			max.	typ.	max.	typ.
DP2016R47MS□-□□□	0.47 $\pm$ 20%	40	4.00	4.50	3.10	3.60
DP20161R0MS□-□□□	1.00 $\pm$ 20%	70	3.10	3.40	2.20	2.60
DP20161R5MS□-□□□	1.50 $\pm$ 20%	110	2.50	2.80	1.80	2.10
DP20162R2MS□-□□□	2.20 $\pm$ 20%	168	2.00	2.20	1.40	1.60
DP20163R3MS□-□□□	3.30 $\pm$ 20%	225	1.50	1.90	1.20	1.40
DP20164R7MS□-□□□	4.70 $\pm$ 20%	360	1.30	1.50	0.95	1.10

- 1). □ : Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance Test Condition. : 1MHz / 1V
- 5). Isat base on $\triangle$ L/L0A=30%. (Approximately transient current)
- 6). Irms base on Temp. rise 40°C.

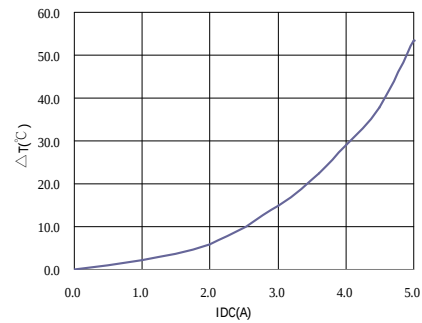
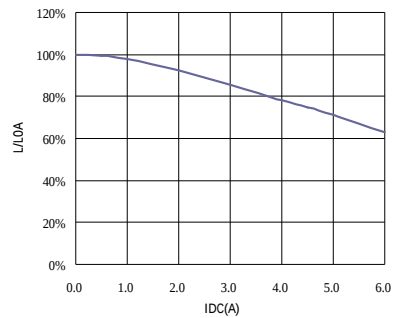
SPECIFICATION FOR APPROVAL

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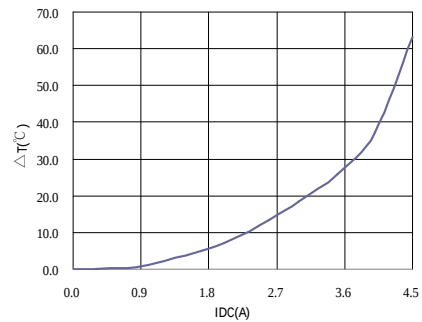
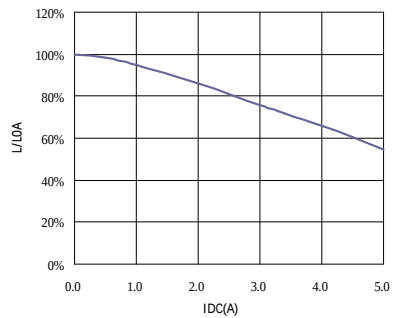
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		DP2016□□□□S□-□□□		
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V . Curve :

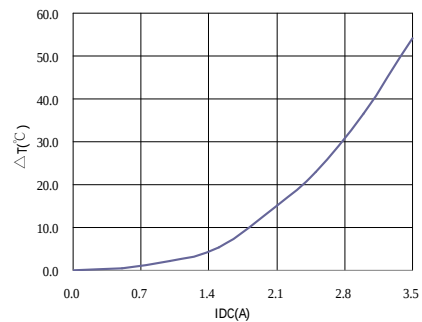
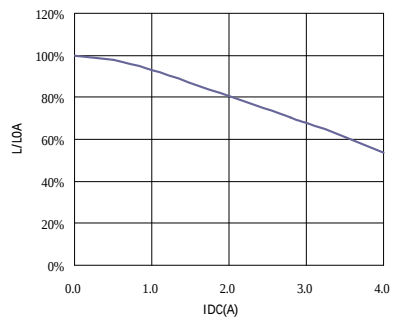
DP2016R47MS□



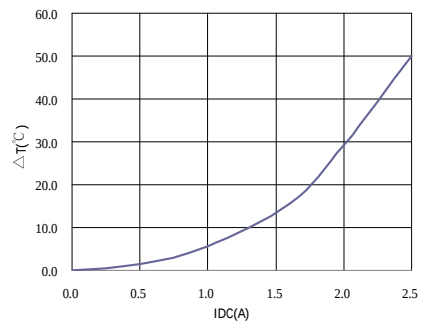
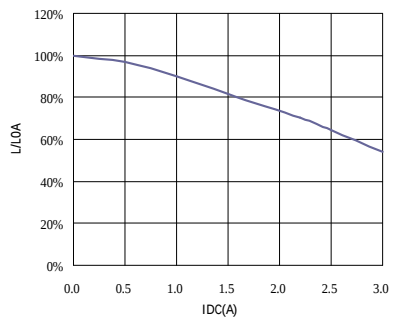
DP20161R0MS□



DP20161R5MS□



DP20162R2MS□



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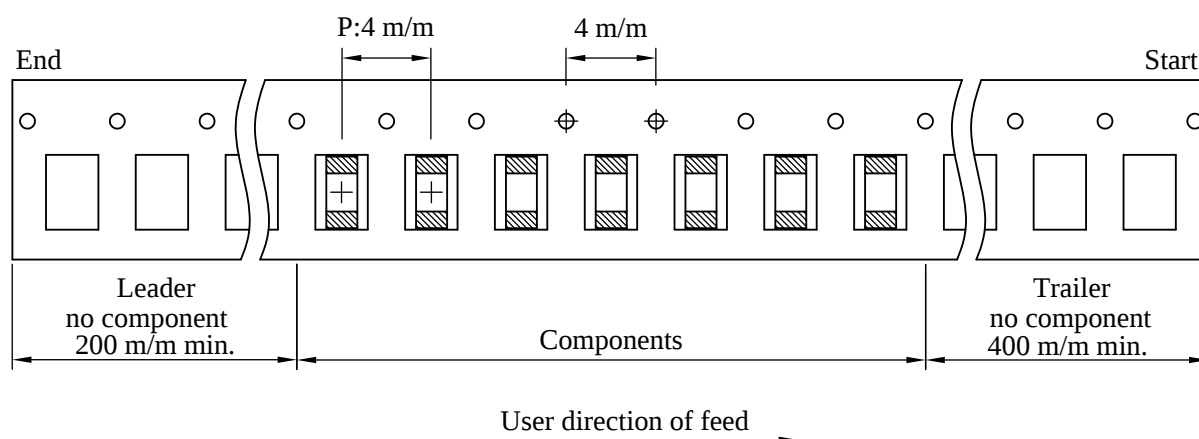
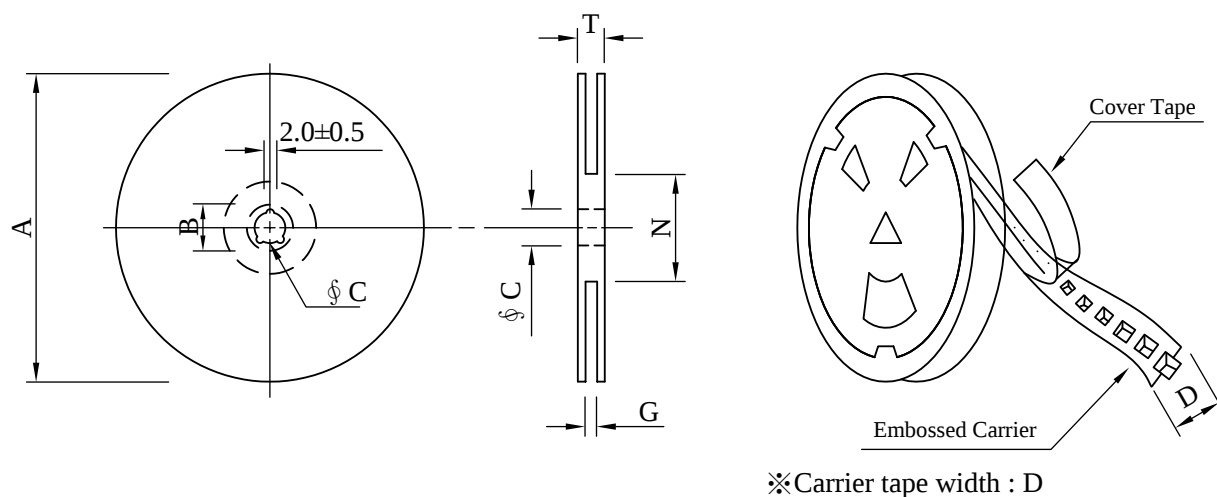
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VI . Packaging information :

(1) Confiuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 08	178	21±0.8	13	8	10 ⁺⁰	50 ⁻⁰	12.5

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

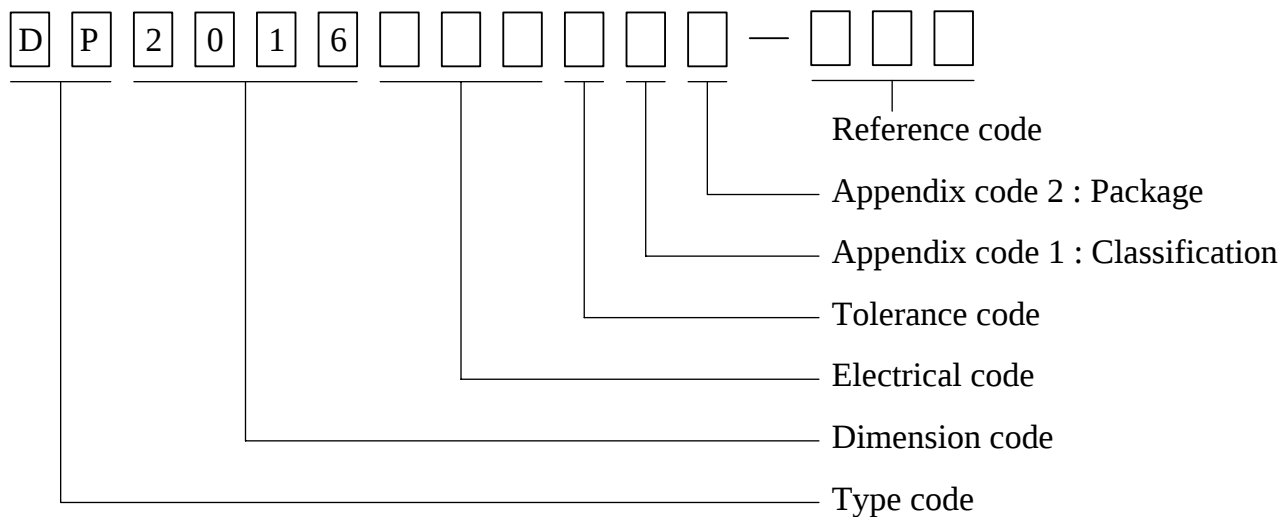
Code	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (g)	Style	Q'TY(pcs)	G.W. (Kg)	Size (cm)
B	3,000	140	07 - 08	150,000	6.8	41 x 39 x 22

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VII . Drawing number expression :



Appendix code 1 : Product Classification

Appendix code 2 : Package Information

Code	Inner package	Cover tape	Carrier tape	Bag	Package Q'TY	Remark
B	T /R (Reel package)	Adhesive	Antistatic	Antistatic	3,000 pcs	

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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.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%.
8.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 & J-STD020D.1	1.Highest temperature : 260±5℃ . 2.Time : 30 Seconds max. 3.IR reflow times : 3 times.	1.No mechanical or electrical damage. 2.Inductance shall not change more than ±20%.
9.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.
10.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
11.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.
12.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.
13.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%.
14.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. pcb and dropped down from a heigh of 1m 2.Drop total time : 6 times (Every side ofsample drop 2 times)	1. Adhesion on PCB shall be enough. 2. Product appearance shall not break. 3. No electrical damage.
15.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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IX . Change history :

DATE/REV.	DISCRIPTION	DRAWN	CHECKED	APPROVED
20160902-A	Released	Miz Hsieh	Nick Chen	Nick Chen
20170321-B	Add the Inductance 3R3M	Miz Hsieh	Nick Chen	Nick Chen
20170427-C	Add the Inductance 4R7M	Miz Hsieh	Nick Chen	Nick Chen
20170523-D	Modify the B package information	Leo Liang	Nick Chen	Nick Chen

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