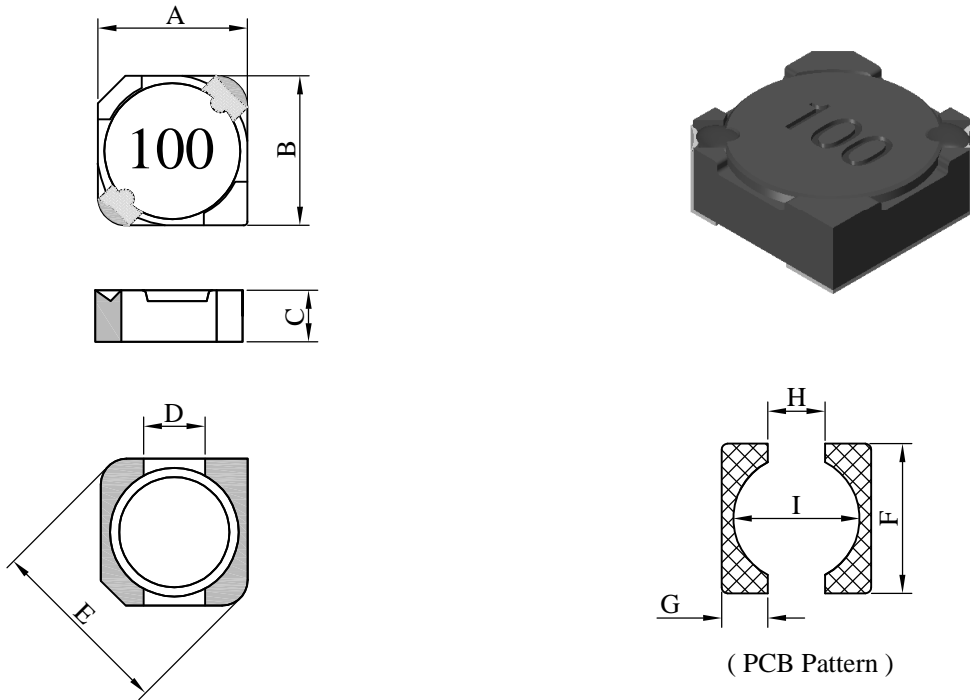


# SPECIFICATION FOR APPROVAL

REF. :

PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.		DH4018□□□□F□-□□□		
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**I . Configuration and dimensions :**



Unit : m/m

A	B	C	D	E	F	G	H	I
5.00 max.	5.00 max.	1.80 max.	2.10 typ.	6.20 typ.	5.20 ref.	1.60 ref.	2.00 ref.	4.20 ref.

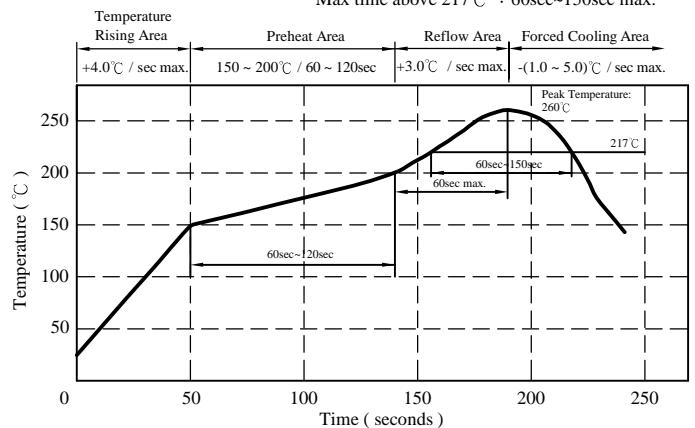
**II . Description :**

- a . Ferrite drum core construction.
- b . Magnetically shielded.
- c . Enamelled copper wire : H class
- d . Product weight : 0.150g ( 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.  
Max. Peak Temp - 5°C : 30sec max.  
Max time above 217°C : 60sec~150sec max.



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## IV . Electrical characteristics :

DWG No.	Inductance ( $\mu$ H)	RDC ( $m\Omega$ ) max.	Isat (A)	Irms (A)
DH40181R0YF□-□□□	1.0 $\pm$ 30 %	35	2.60	2.70
DH40181R8YF□-□□□	1.8 $\pm$ 30 %	58	2.20	2.35
DH40182R7YF□-□□□	2.7 $\pm$ 30 %	60	1.90	2.02
DH40183R3YF□-□□□	3.3 $\pm$ 30 %	70	1.70	1.80
DH40184R7YF□-□□□	4.7 $\pm$ 30 %	82	1.50	1.72
DH40185R6YF□-□□□	5.6 $\pm$ 30 %	95	1.30	1.65
DH40186R8YF□-□□□	6.8 $\pm$ 30 %	100	1.20	1.50
DH40188R2YF□-□□□	8.2 $\pm$ 30 %	135	1.05	1.35
DH4018100MF□-□□□	10.0 $\pm$ 20 %	150	1.00	1.30
DH4018120MF□-□□□	12.0 $\pm$ 20 %	195	0.90	1.15
DH4018150MF□-□□□	15.0 $\pm$ 20 %	220	0.82	1.03
DH4018180MF□-□□□	18.0 $\pm$ 20 %	280	0.75	0.92
DH4018220MF□-□□□	22.0 $\pm$ 20 %	330	0.65	0.87
DH4018270MF□-□□□	27.0 $\pm$ 20 %	400	0.57	0.75
DH4018330MF□-□□□	33.0 $\pm$ 20 %	480	0.50	0.70
DH4018390MF□-□□□	39.0 $\pm$ 20 %	600	0.48	0.60
DH4018470MF□-□□□	47.0 $\pm$ 20 %	770	0.45	0.50
DH4018560MF□-□□□	56.0 $\pm$ 20 %	820	0.40	0.47
DH4018680MF□-□□□	68.0 $\pm$ 20 %	940	0.38	0.45
DH4018820MF□-□□□	82.0 $\pm$ 20 %	1200	0.32	0.40
DH4018101MF□-□□□	100.0 $\pm$ 20 %	1350	0.30	0.35

- 1). □ : Packaging information : □ Code
- 2). "-□□□" : Reference code
- 3). Electrical specifications at 25°C
- 4). Inductance Test Condition. : 100kHz / 0.1V
- 5). Irms base on Temp. rise 40°C typ.
- 6). Isat base on  $\Delta$  L/L0A = 35% typ.

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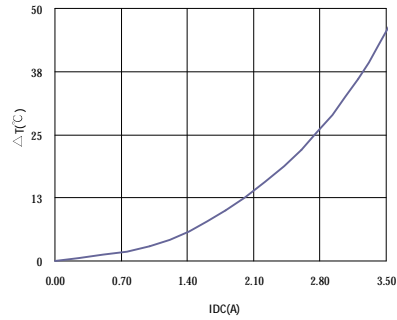
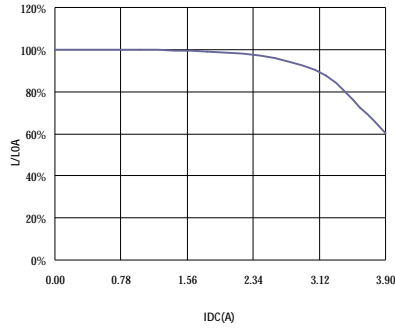
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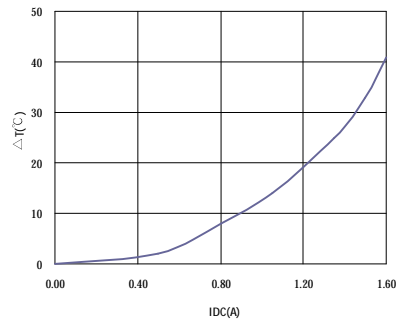
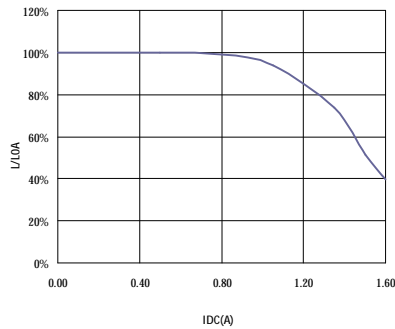
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	DH4018□□□□F□-□□□		
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V . Curve :

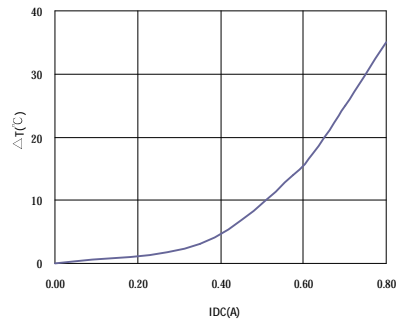
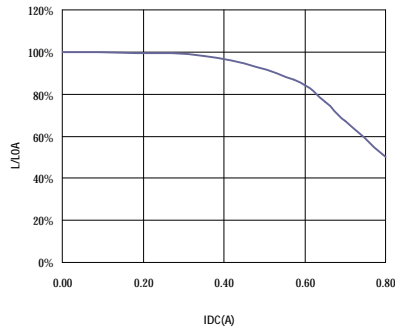
DH40181R0YF□



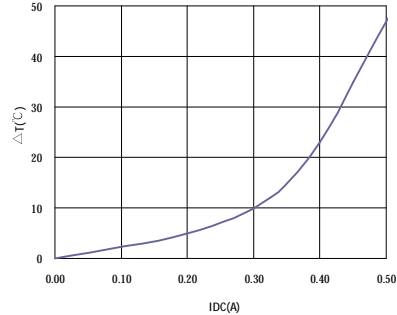
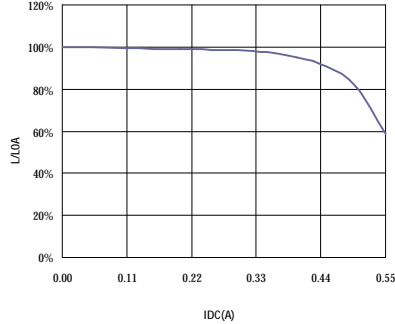
DH40188R2YF□



DH4018270MF□



DH4018820MF□



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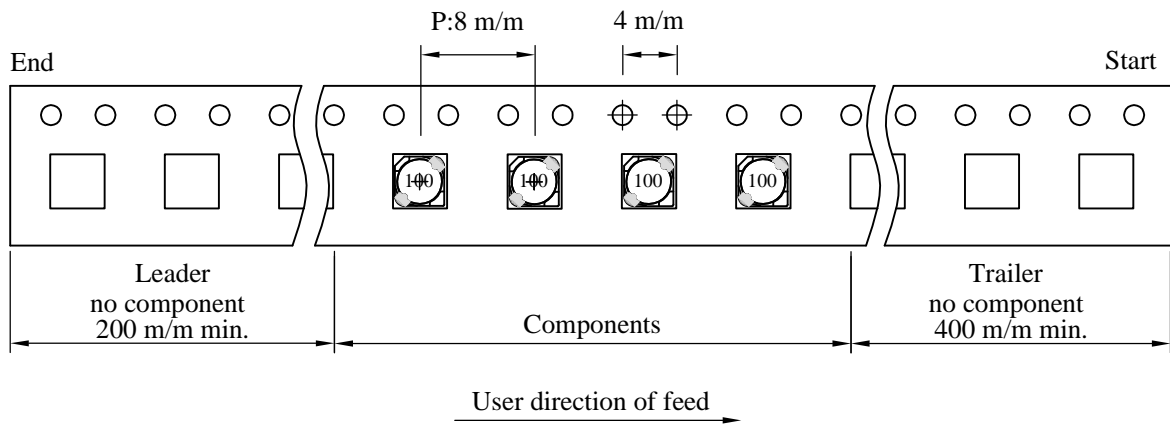
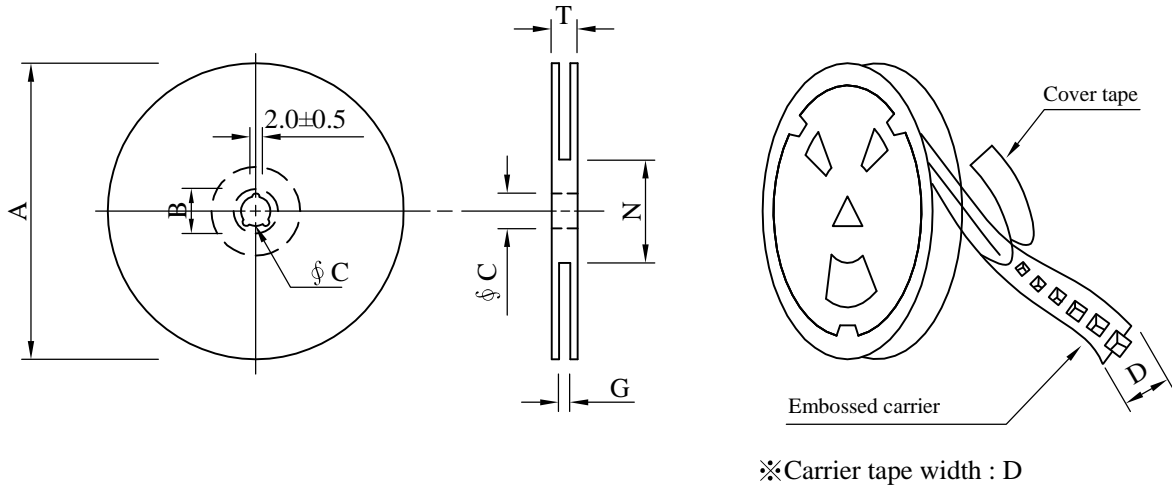
# SPECIFICATION FOR APPROVAL

REF. :

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## VI . Packaging information :

### ( 1 ) Configuration



### ( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
07 - 12	178	21±0.8	13	12	14 +0	50 -0	16.5

### ( 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	800	220	07 - 12	32,000	10.1	42 x 41 x 24

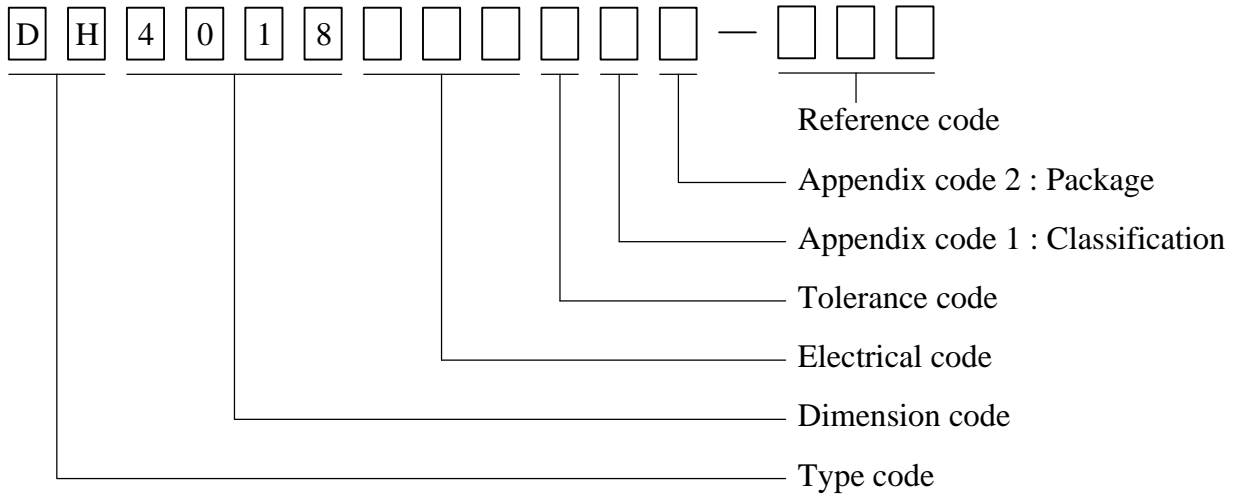
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# SPECIFICATION FOR APPROVAL

REF. :

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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)	UCT	Antistatic	Antistatic	800 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.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 Amplitud : 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 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℃ 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 time (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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