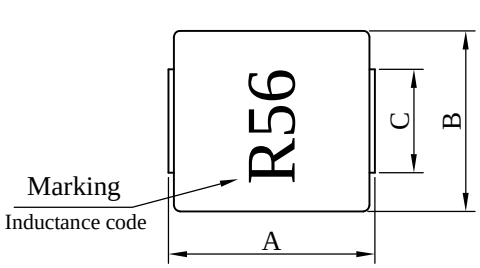
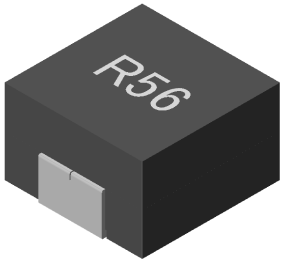
SPECIFICATION FOR APPROVAL

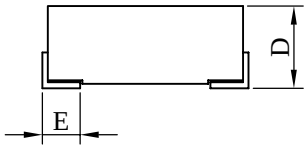
REF. :

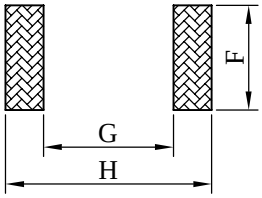
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	HP0604□□□□L□-□□□		
		REV.	20150323-B	PAGE	1

Ⅰ．Configuration and dimensions：









(PCB Pattern)

Unit：m/m

A	B	C	D	E	F	G	H
7.20 ±0.30	6.50 ±0.20	3.00 ±0.30	4.00 max.	1.70 ±0.50	3.40 typ.	3.70 typ.	7.40 typ.

Ⅱ．Description：

a．Powder molding construction.

b．Magentically shielded.

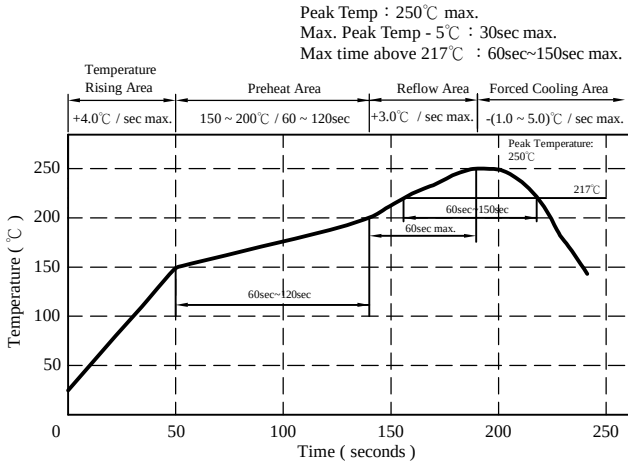
c．Enamelled copper wire：H class

d．Product weight：0.98g（ref.）

e．Moisture sensitivity Level 3

f．Products comply with RoHS' requirements

g．Halogen free available



Ⅲ．General specification：

a．Storage temp.：-55℃ ----+125℃

b．Operating temp.：-55℃----+125℃

（Temp. rise included）

c．Resistance to solder heat：250℃.10 secs.

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PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	HP0604□□□□L□-□□□		
		REV.	20150323-B	PAGE	2

Ⅳ． Electrical characteristics：

DWG No.	Inductance L (μH)	Isat(A) typ	Irms(A) typ	RDC (mΩ)	
				max.	typ.
HP0604R56ML□-□□□	0.56±20%	11.0	18.0	4.4	3.9
HP0604R68ML□-□□□	0.68±20%	10.5	16.5	5.0	4.6
HP0604R82ML□-□□□	0.82±20%	12.0	15.0	5.5	5.1
HP06041R0ML□-□□□	1.00±20%	13.5	12.0	7.2	6.6
HP06041R5ML□-□□□	1.50±20%	11.0	11.0	10.0	9.4
HP06042R2ML□-□□□	2.20±20%	9.0	9.0	15.5	14.0
HP06043R3ML□-□□□	3.30±20%	7.0	6.5	23.0	22.0
HP06044R7ML□-□□□	4.70±20%	6.5	6.0	33.5	32.0
HP06045R6ML□-□□□	5.60±20%	6.0	5.5	38.0	36.0
HP06046R8ML□-□□□	6.80±20%	5.5	5.0	49.5	46.0
HP06048R2ML□-□□□	8.20±20%	5.0	4.5	50.5	47.0
HP0604100ML□-□□□	10.00±20%	4.0	4.0	78.5	75.0

1). □：Packaging information：□ Code

2). "-□□□ "：Reference code

3). Measured frequency of inductance is 100 kHz / 0.25V

4). Isat base on inductance drop 20% typ. of L value at 20℃

5). Irms base on temp. rise 40℃ typ.

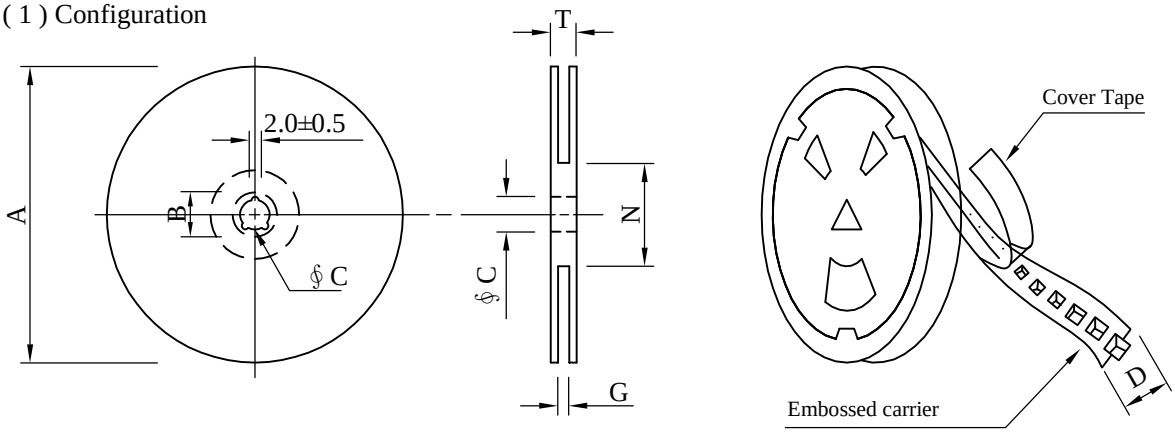
SPECIFICATION FOR APPROVAL

REF. :

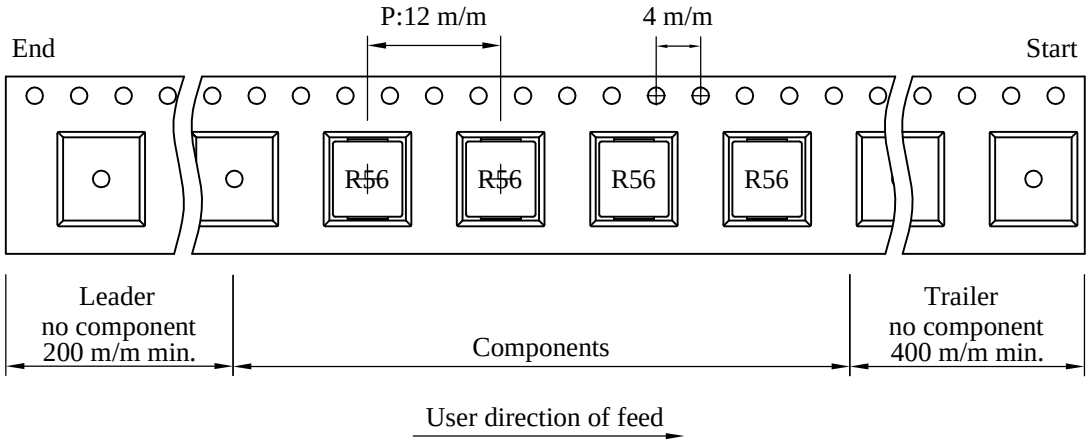
PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	HP0604□□□□L□-□□□		
		REV.	20150323-B	PAGE	3

Ⅴ．Packaging information：

(1) Configuration



※Carrier tape width ：D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 16	330	21±0.8	13±0.5	16	18^{+0}	50^{-0}	22.4

(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	1,200	1,400	13 - 16	7,200	9.20	38 x 37 x 22

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PROD. NAME	Shielded SMD Power Inductor	ABC'S DWG NO.	HP0604□□□□L□-□□□		
		REV.	20150323-B	PAGE	4

Ⅵ．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: -55℃ ~ +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 apperarance. 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 20% 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 Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature：-55℃~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.