

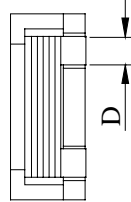
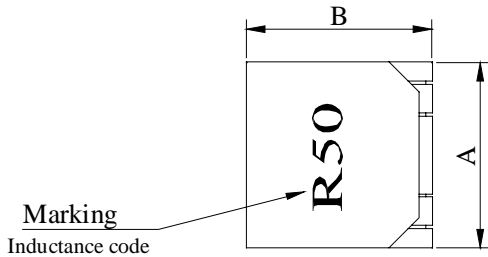
SPECIFICATION FOR APPROVAL

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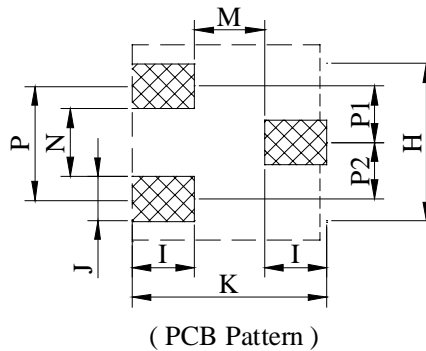
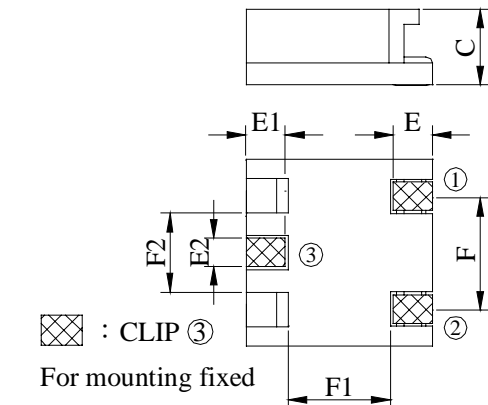
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO.	SP1204□□□□L□
		ABC'S ITEM NO.	

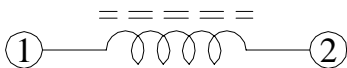
I . MECHANICAL DIMENSIONS :



- A : 12.50±0.30 m/m
- B : 12.50±0.30 m/m
- C : 4.00⁺⁰ m/m
- D : 1.90±0.20 m/m
- E : 2.50 nom. m/m
- E1: 3.00 ref. m/m
- E2: 2.00 ref. m/m
- F : 7.50±0.25 m/m
- F1: 6.40 ref. m/m
- F2: 5.20 ref. m/m
- H : 10.50 ref. m/m
- I : 4.15 ref. m/m
- J : 3.00 ref. m/m
- K : 13.00 ref. m/m
- M : 4.70 ref. m/m
- N : 4.50 ref. m/m
- P : 7.50 ref. m/m
- P1 : 3.75 ref. m/m
- P2 : 3.75 ref. m/m

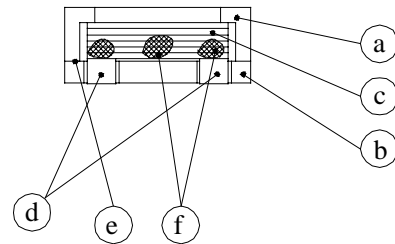


II . SCHEMATIC DIAGRAM :



III . MATERIALS LIST :

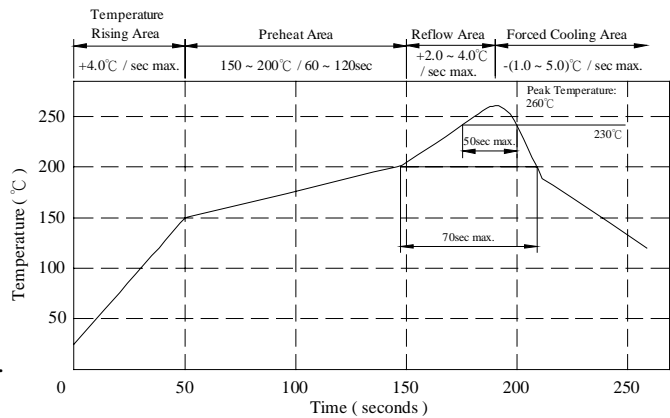
- a . Core : Ferrite ER core
- b . Core : Ferrite SB core
- c . Wire : Ultra-fine rectangular
Enamelled copper wire (class F)
- d . Terminal : Cu/Sn
- e . Adhesive : Epoxy resin
- f . Adhesive : Epoxy resin
- g . Remark : Lead content 200ppm max.
include ferrite



Peak Temp : 260°C max.
Max time above 230°C : 50sec max.
Max time above 200°C : 70sec max.

IV . GENERAL SPECIFICATION :

- a . Temp. rise : 40°C max.
- b . Storage temp. : -40°C ~ +125°C
- c . Operating temp. : -40°C ~ +105°C
- d . Resistance to solder heat : 260°C. 10 secs.



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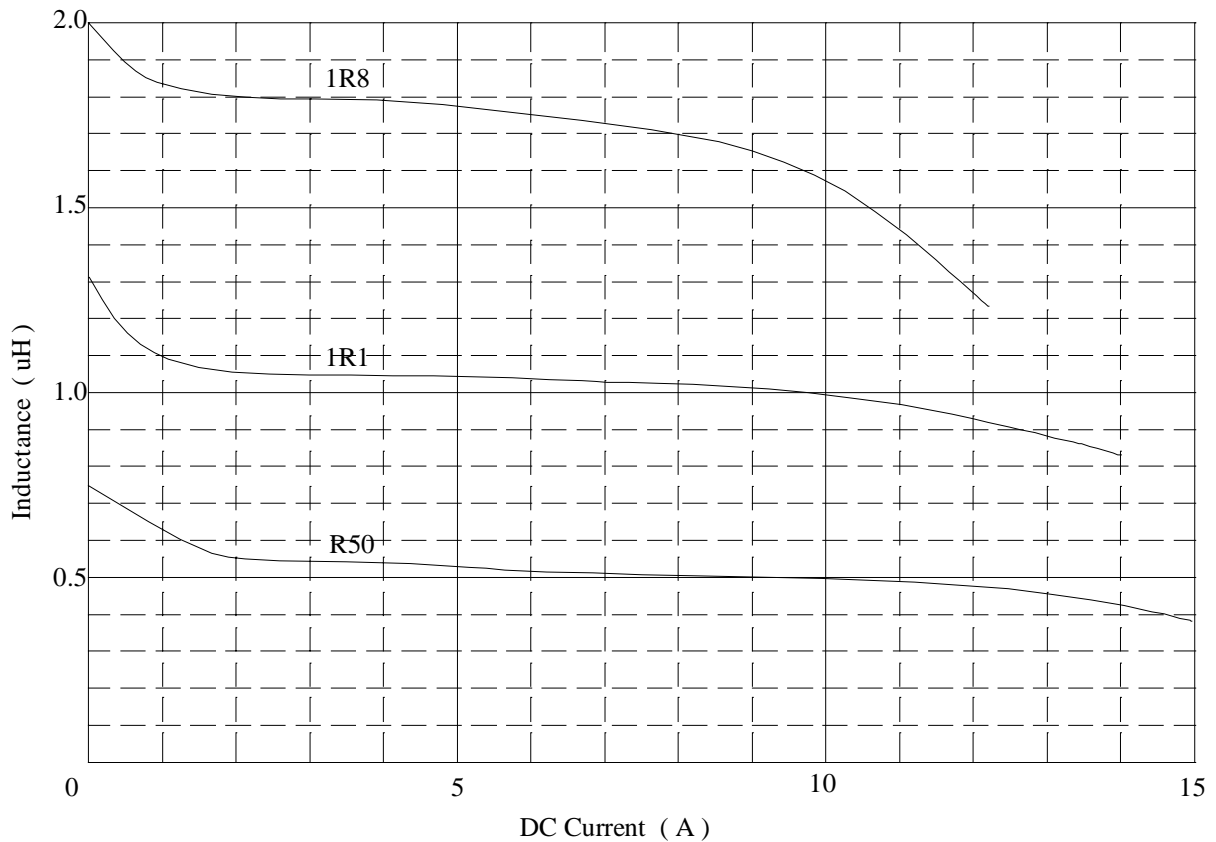
PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO.	SP1204□ □ □ □ L□
		ABC'S ITEM NO.	

V . ELECTRICAL CHARACTERISTICS :

DWG No.	Initial Inductance L0 (uH)	Inductance at flatpoint L1 (uH)	Flat Point ref. (A)	Irms (A)	Isat (A)	DC Resistance max. (mΩ)
SP1204R50ML□	0.75± 20%	0.55± 20%	2.0	13.0	14.0	3.0
SP12041R1ML□	1.30± 20%	1.10± 20%	2.0	12.0	13.0	4.5
SP12041R8ML□	2.00± 20%	1.80± 20%	2.0	10.0	11.0	6.0

- 1). □ : Packaging information... [A]: Bulk [B]: Taping Reel
- 2). Measured Frequency of inductance is 100 KHz / 1V
- 3). Irms Base on temp. rise 40°C max.
- 4). Isat Base on inductance drop 20% typ. of L1 Value

@ Inductance VS. DC Superposition Characteristics



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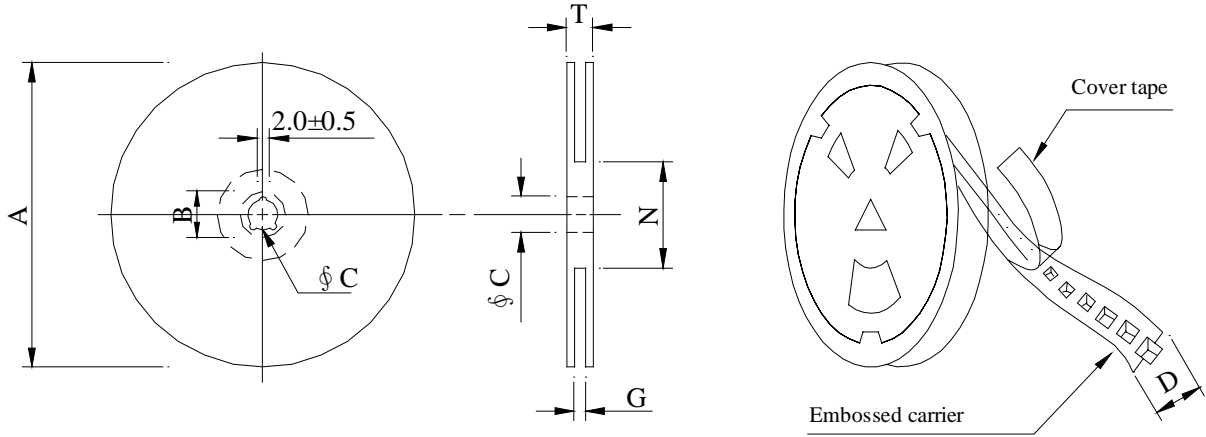
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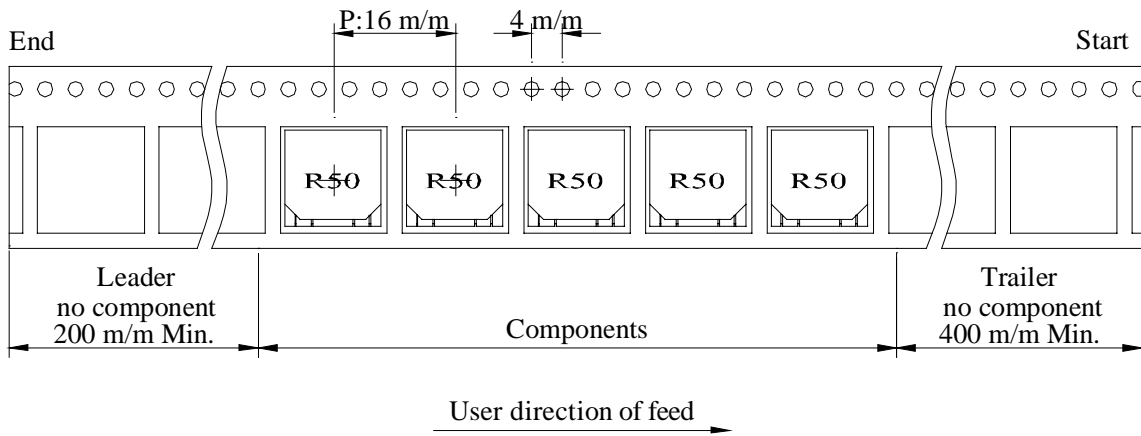
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		ABC'S ITEM NO.	

VI . PACKAGING INFORMATION :

(1) Configuratomn



※Carrier tape width : D



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13	24	26 ⁺⁰	50 ⁻⁰	30.4

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

Series	Inner : Reel			Outer : Carton		
	Q'TY (pcs)	G.W. (gw)	Style	Q'TY (pcs)	G.W. (Kg)	Size (cm)
SP1204	800	2,150	13 - 24	3,200	11.30	40 x 40 x 24

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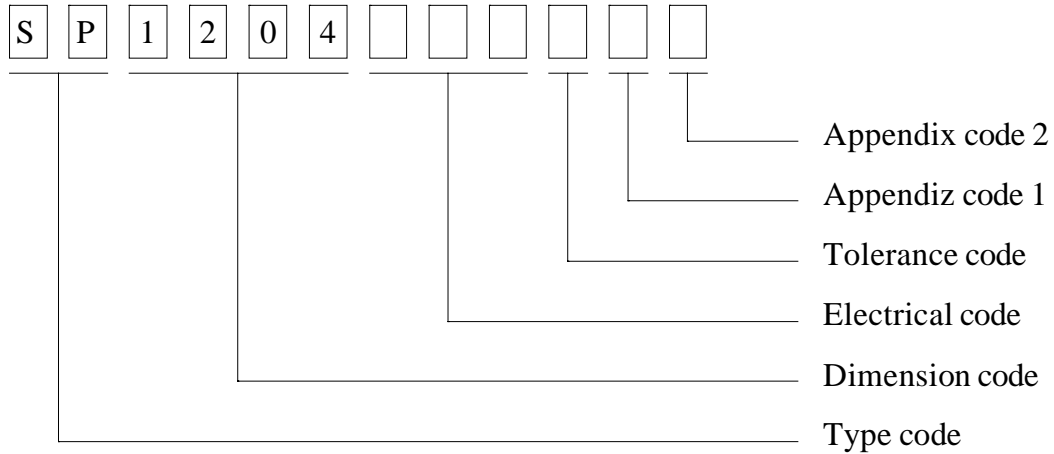
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VII . DWG EXPRESSION :



Appendix code 1 : S : Standard products
 A~K , M~R , T~Z : Special products
 L : Standard Lead Free products
 1 ~ 9 : Special Lead Free products

Appendix code 2 :

Code	Inner package	Inner package Q'TY	Remark
A	Empty	Empty	
B	T / R (Reel package)	800 pcs	

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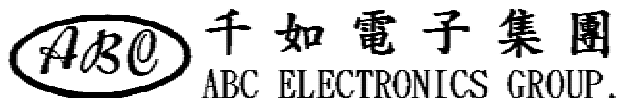
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PROD. NAME	SHIELDED SMD POWER CHOKE	ABC'S DWG NO.	SP1204□□□□L□
		ABC'S ITEM NO.	

VIII . RELIABILITY TEST :

Test item	Specification	Test condition															
Solderability	More than 90% of the terminal electrode shall be covered With fresh solder.	Preheat : 150±25°C for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 4±1 seconds															
Thermal shock test (Temp. cycle)	Inductance shall not change more than ±20%	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">Room temp.</td> <td style="border: none; text-align: center;">—————▶</td> <td style="border: none; text-align: center;">-25±2 °C</td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none;"></td> <td style="border: none; text-align: center;">30 minutes</td> </tr> <tr> <td colspan="3" style="border: none;"> </td> </tr> <tr> <td style="border: none;">Room temp.</td> <td style="border: none; text-align: center;">—————▶</td> <td style="border: none; text-align: center;">85±2 °C</td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none;"></td> <td style="border: none; text-align: center;">30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp.	—————▶	-25±2 °C	15 minutes		30 minutes				Room temp.	—————▶	85±2 °C	15 minutes		30 minutes
Room temp.	—————▶	-25±2 °C															
15 minutes		30 minutes															
Room temp.	—————▶	85±2 °C															
15 minutes		30 minutes															
Humidity Resistance test		Temperature : 40±2°C Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours															
High temp. Resistance test		Temperature : 105±2°C Applied current : Per spec. Time : 500 hours															

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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG NO. ABC'S ITEM NO.	SP1204□□□□L□
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IX . UL CARD :

OBMW2	January 7, 1988	
Component-Magnet Wire		
MITSUBISHI CABLE INDUSTRIES LTD		E104048 (S)
4-3 IKEJIRI ITAMI , HYOGO 664 JAPAN		
Mtl	Coat Typ	ANSI
Dsg	Oyercoat	Type
EDW-R52	BC Medis	Ester-imide
		Temp Class
		155
Marking : Company name and type designation on package or reels.		
See General Information Preceding These Recognitions.		
For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.		
Report : January 5, 1988.		
302279005	H7642	Underwriters Laboratories Inc.®
		D11/0149909