

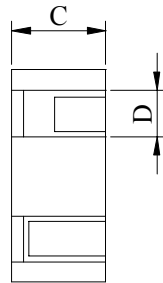
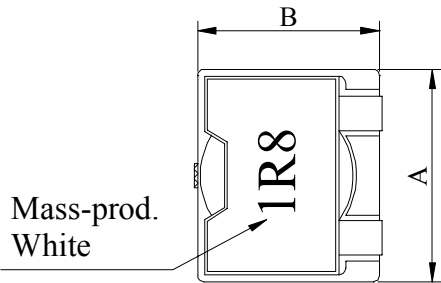
SPECIFICATION FOR APPROVAL

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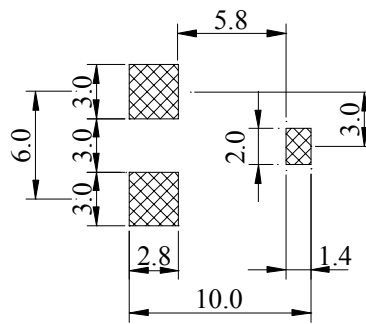
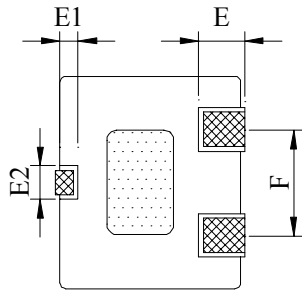
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1045□□□□2□-□□□
		ABC'S ITEM No.	

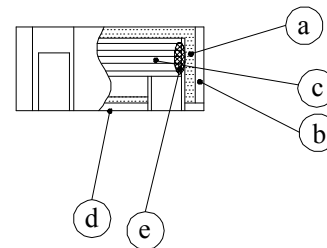
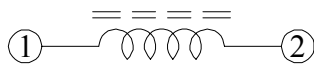
. MECHANICAL DIMENSIONS :



- A : 11.00±0.30 m/m
- B : 9.35±0.30 m/m
- C : 4.50±0.30 m/m
- D : 2.10 typ. m/m
- E : 2.00 typ. m/m
- E1: 1.00 typ. m/m
- E2: 1.50 typ. m/m
- F : 6.00 typ. m/m



. SCHEMATIC DIAGRAM :



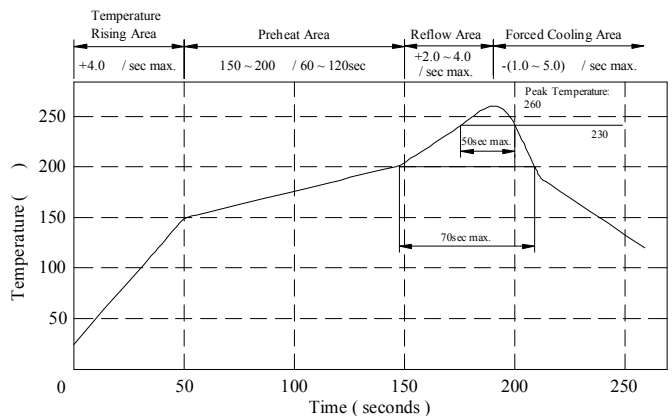
. MATERIALS LIST :

- a . Core : Ferrite ER core
- b . Base : UL 94V-0
- c . Wire : Ultra-fine rectangular Enamelled copper wire
- d . Clip : Cu / Ni / Sn
- e . Adhesive : Epoxy resin
- f . Remark : Products comply with RoHS' requirements

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

. GENERAL SPECIFICATION :

- a . Storage temp. : -55 ~ +135
- b . Operating temp. : -55 ~ +135
(Temp. rise included)
- c . Resistance to solder heat : 260 . 10 secs.



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PROD.	SHIELDED SMD	ABC'S DWG No.	SP1045□□□□2□-□□□
NAME	POWER INDUCTOR	ABC'S ITEM No.	

. ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance L (μ H)	Isat (A)	Irms (A)	RDC ($m\Omega$)	
				max.	typ.
SP1045R22Y2□-□□□	0.22 \pm 30 %	40.0	23.0	1.7	1.3
SP1045R45M2□-□□□	0.45 \pm 20 %	25.0	15.0	3.9	3.0
SP1045R80M2□-□□□	0.80 \pm 20 %	20.0	13.0	4.4	3.4
SP10451R3M2□-□□□	1.30 \pm 20 %	15.0	9.5	8.7	6.7
SP10451R8M2□-□□□	1.80 \pm 20 %	13.0	8.0	10.4	8.0

- 1). □ : Packaging information ... **A**: Bulk **B**: Taping Reel
- 2). "- □□□ ":Reference code
- 3). Measured frequency of inductance is 100 KHz / 1V
- 4). Isat base on inductance drop 25% typ. of L value at 20
- 5). Irms base on temp. rise 40 max.

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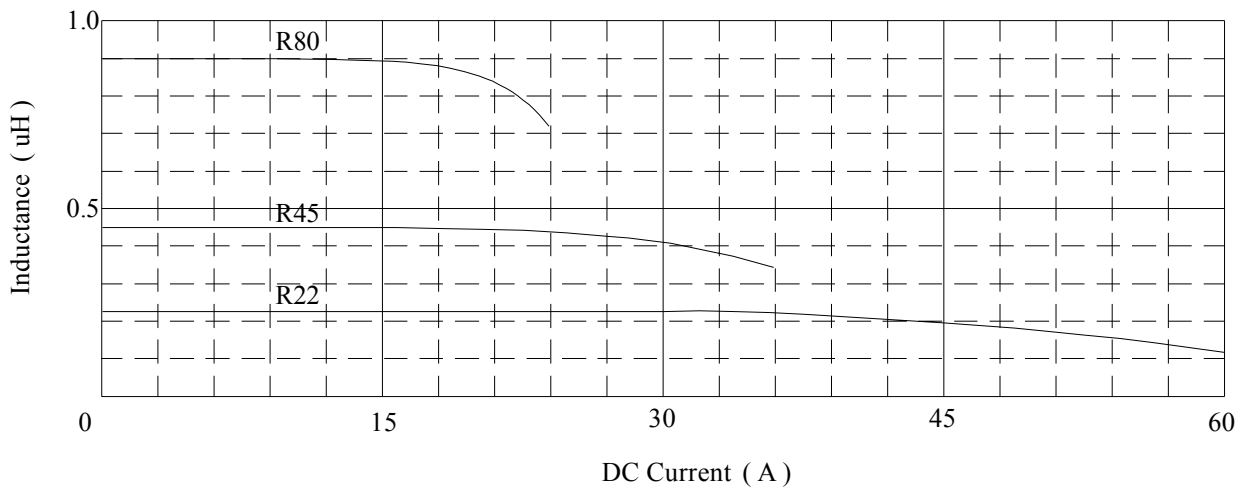
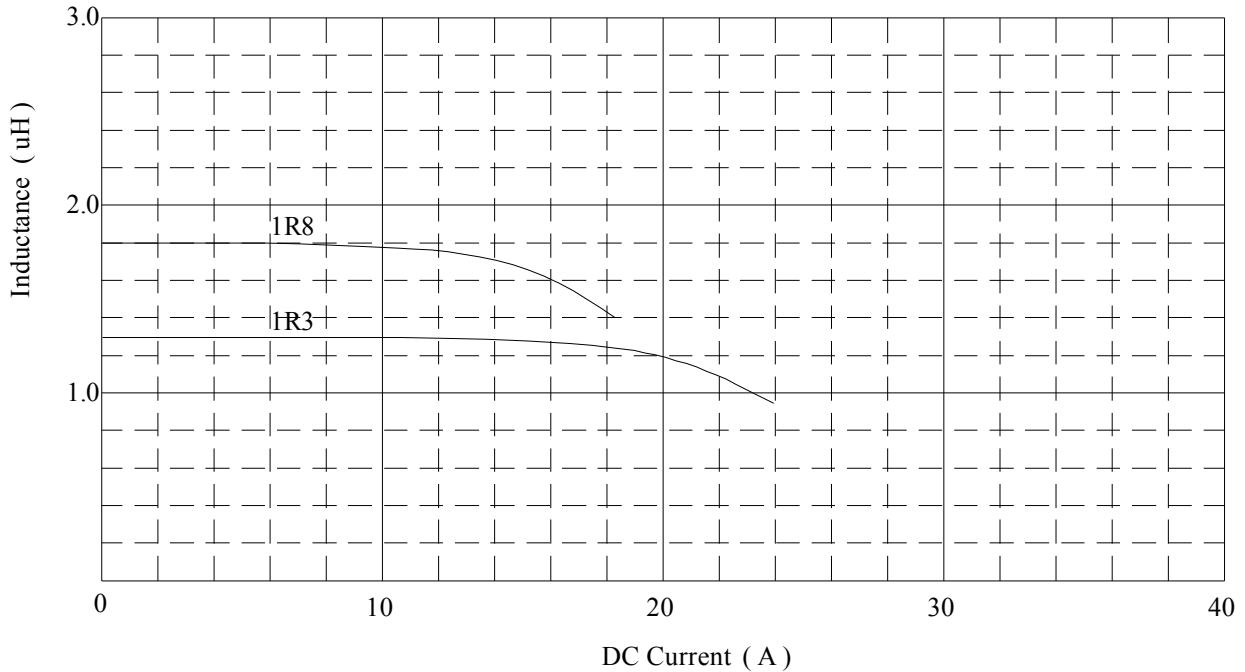
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@ Inductance VS. DC Superposition characteristics



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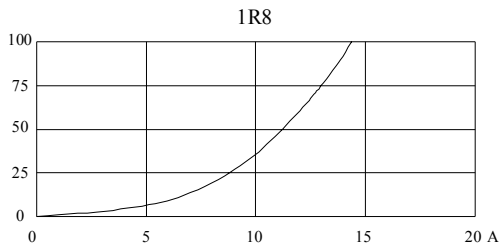
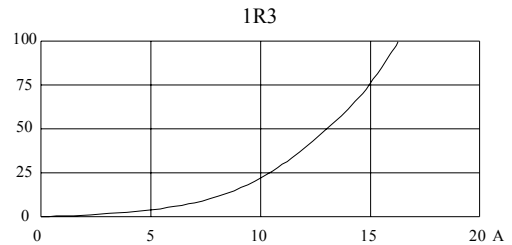
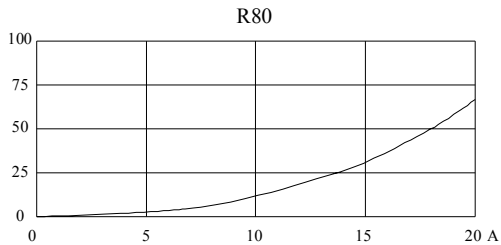
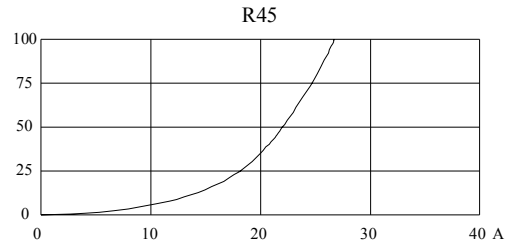
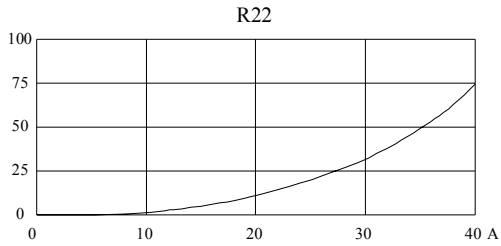
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1045□□□□2□-□□□
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@ DC Current VS Temperature Rise



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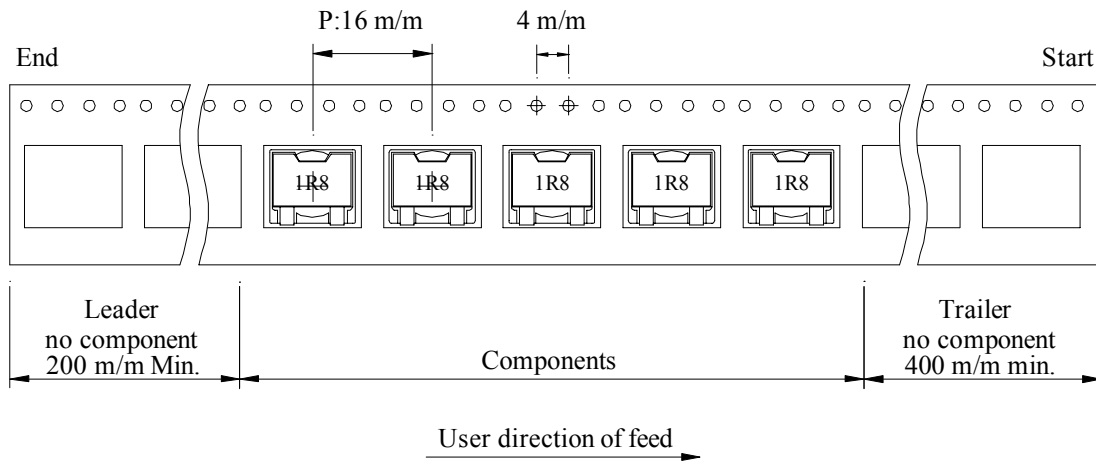
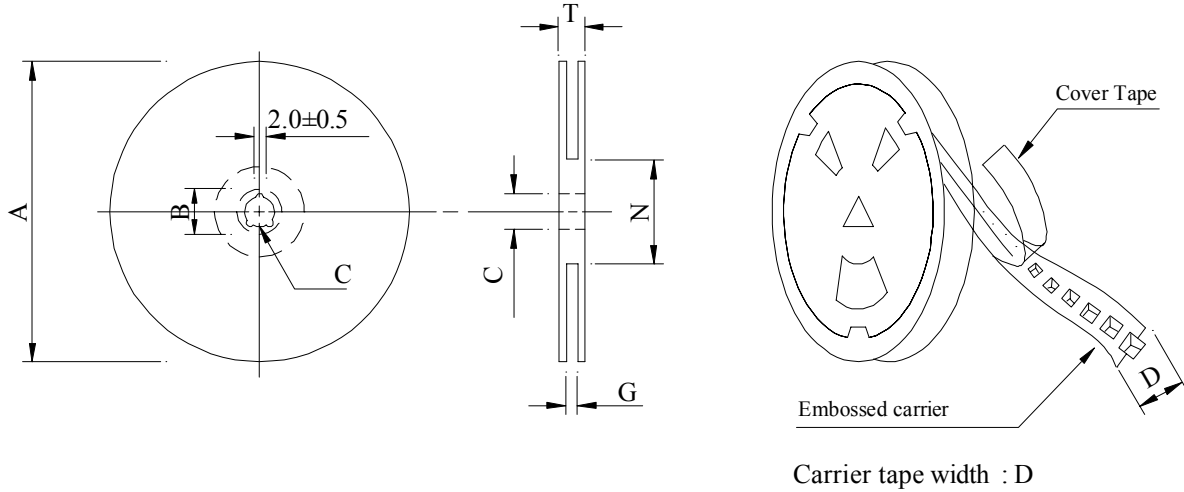
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		ABC'S ITEM No.	

PACKAGING INFORMATION :

(1) Configuration



(2) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 24	330	21±0.8	13±0.5	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)
SP1045	600	700	13 - 24	2,400	6.50	40 x 40 x 24

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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No. ABC'S ITEM No.	SP1045□□□□2□-□□□
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. RELIABILITY TEST :

Test item	Specification	Test condition						
Solderability	More than 90% of the terminal electrode shall be covered With fresh solder.	Preheat : 150±25 for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 250±5 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="text-align: center;">Room temp.</td> <td style="text-align: center;">→</td> <td style="text-align: center;">-25±2</td> </tr> <tr> <td style="text-align: center;">15 minutes</td> <td></td> <td style="text-align: center;">30 minutes</td> </tr> </table>	Room temp.	→	-25±2	15 minutes		30 minutes
Room temp.		→	-25±2					
15 minutes			30 minutes					
		<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Room temp.</td> <td style="text-align: center;">→</td> <td style="text-align: center;">85±2</td> </tr> <tr> <td style="text-align: center;">15 minutes</td> <td></td> <td style="text-align: center;">30 minutes</td> </tr> </table>	Room temp.	→	85±2	15 minutes		30 minutes
Room temp.	→	85±2						
15 minutes		30 minutes						
	Total : 50 cycles							
Humidity Resistance test		Temperature : 40±2 Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours						
High temp. Resistance test		Temperature : 85±2 Applied current : Per spec. Time : 500 hours						

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UL CARD :

OBMW2 January 7, 1988
 Component-Magnet Wire E104048 (S)
 MITSUBISHI CABLE INDUSTRIES LTD
 4-3 IKEJIRI ITAMI , HYOGO 664 JAPAN

Mtl Dsg	BC	Coat Typ	Oyercoat	ANSI Type	Temp Class
EDW-R52	Medis		Ester-imide	—	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

QMFZ2 August 31, 2002
 Plastics-Component E91944
 NIPPON PETROCHEMICALS CO LTD

Mterial Dsg	Color	Min Thk mm	Flame Class	H W I	H A I	Elec	RTI Imp	Mech Str	H V R	D 4 5	C T I
Liquid Crystal Polyester (LCP), glass filled, furnished as pellets.	NC , BK	0.30	V-0	—	—	130	130	130	—	—	—

HM-402

(a)-Virgin and Regrind up to 50% have the same basic characteristics.
 r1-Virgin and Regrind from 1 to 50% by weight incl. have the same Flame characteristics, Tensile Impact, Tensile Strength and Heat Deflection in natural color only.
 r2-Virgin and Regrind from 26-50% by weight inclusive for the colors NC, and BK liave the same Flame, and Tensile Impact characteristics.
 r3-Virgin and Regrind from 26-50% by weight inclusive have the same Flame and Tensile Impact characteristics.

Marking : Company name or trademark 新日本石油化學株式會社 and material designation on container, wrapper or finished part.

10/15/2002 Underwriters Laboratories Inc. Card 8 of 9