

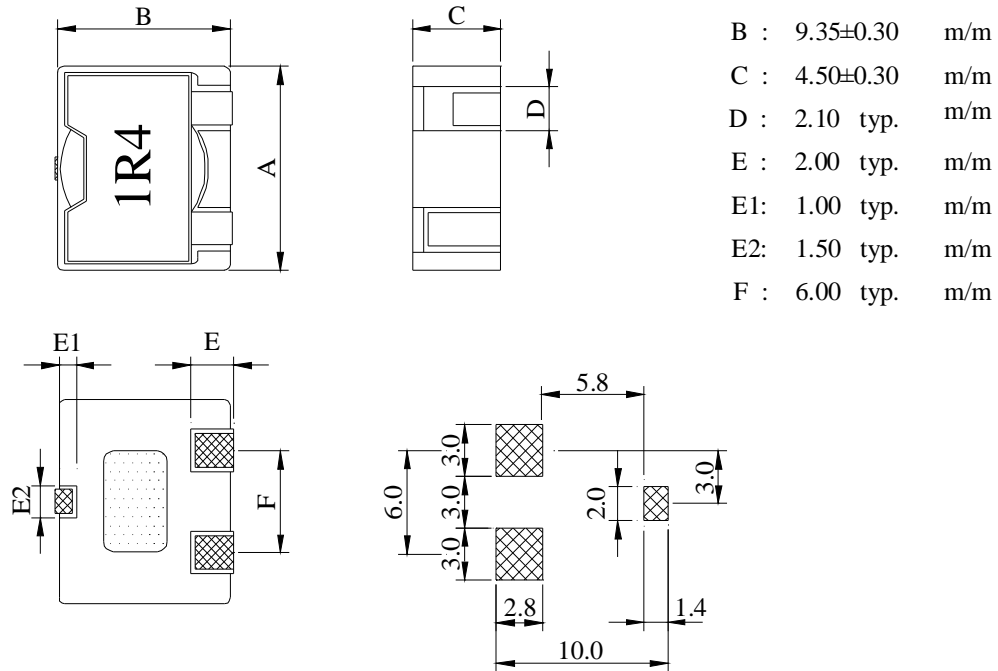
SPECIFICATION FOR APPROVAL

REF : 20091104-A

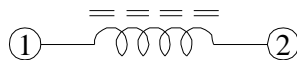
PAGE: 1

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

I . MECHANICAL DIMENSIONS :

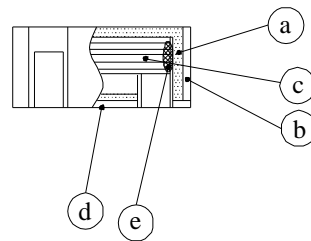


II . SCHEMATIC DIAGRAM :

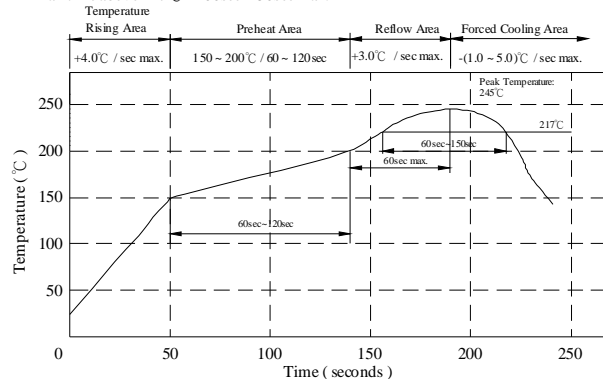


III . MATERIALS LIST :

- 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 : 245°C max.
 Max. Peak Temp -5°C : 30sec max.
 Max time above 217°C : 60sec~150sec max.



IV . GENERAL SPECIFICATION :

- a . Storage temp. : -55°C ~ +135°C
- b . Operating temp. : -55°C ~ +135°C
(Temp. rise included)
- c . Resistance to solder heat : 245°C. 10 secs.

AR-001A

SPECIFICATION FOR APPROVAL

REF : 20091104-A

PAGE: 2

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V . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance L (μ H)	Isat (A)	Irms (A)	RDC (m Ω)	
				max.	typ.
SP1045R36YL□-□□□	$0.36 \pm 30 \%$	28.0	28.5	1.7	1.3
SP1045R80ML□-□□□	$0.80 \pm 20 \%$	18.0	17.0	3.9	3.0
SP10451R4ML□-□□□	$1.40 \pm 20 \%$	13.5	13.5	4.4	3.4
SP10452R2ML□-□□□	$2.20 \pm 20 \%$	11.5	10.0	8.7	6.7
SP10453R2ML□-□□□	$3.20 \pm 20 \%$	9.0	9.0	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°C
- 5). Irms base on temp. rise 40°C max.

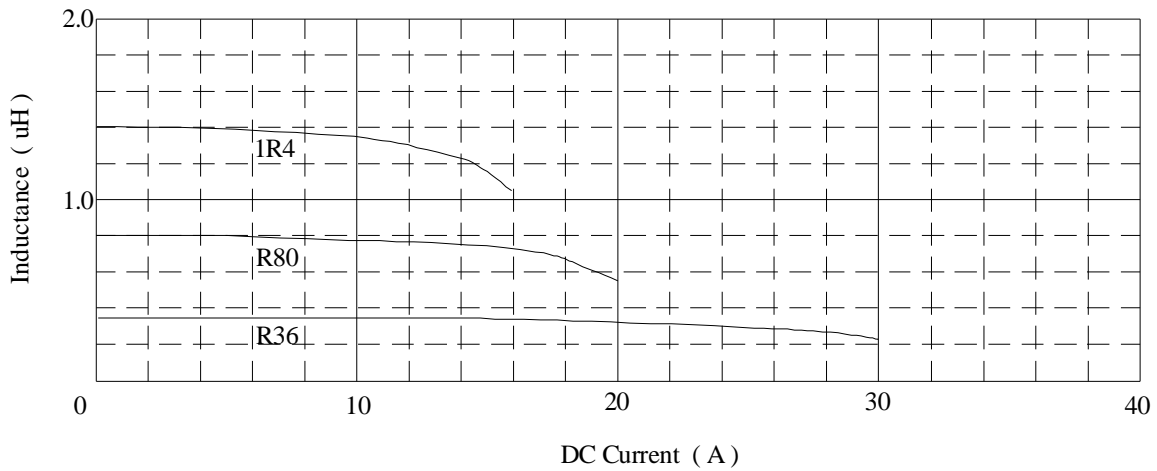
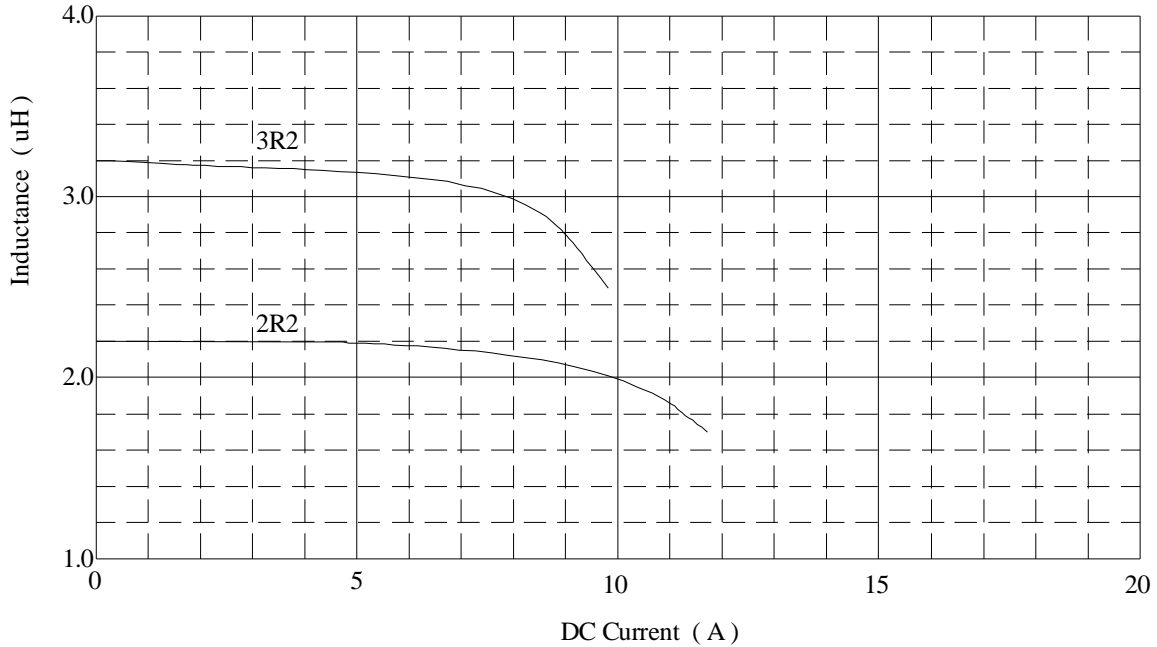
SPECIFICATION FOR APPROVAL

REF : 20091104-A

PAGE: 3

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@ Inductance VS. DC Superposition characteristics



AR-001A



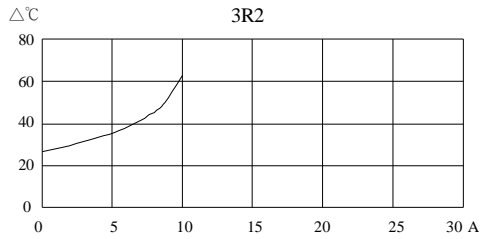
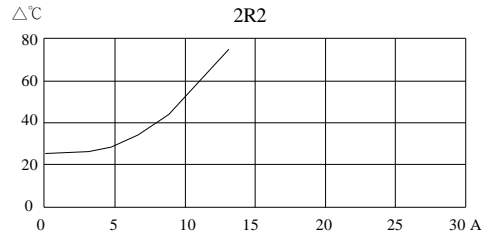
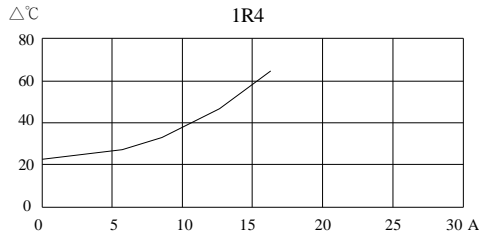
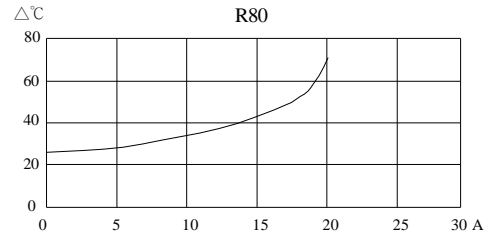
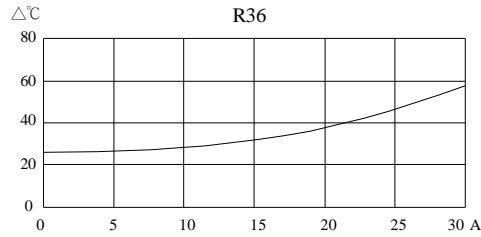
SPECIFICATION FOR APPROVAL

REF : 20091104-A

PAGE: 4

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@ DC Current VS Temperature Rise



AR-001A



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ABC ELECTRONICS GROUP.

SPECIFICATION FOR APPROVAL

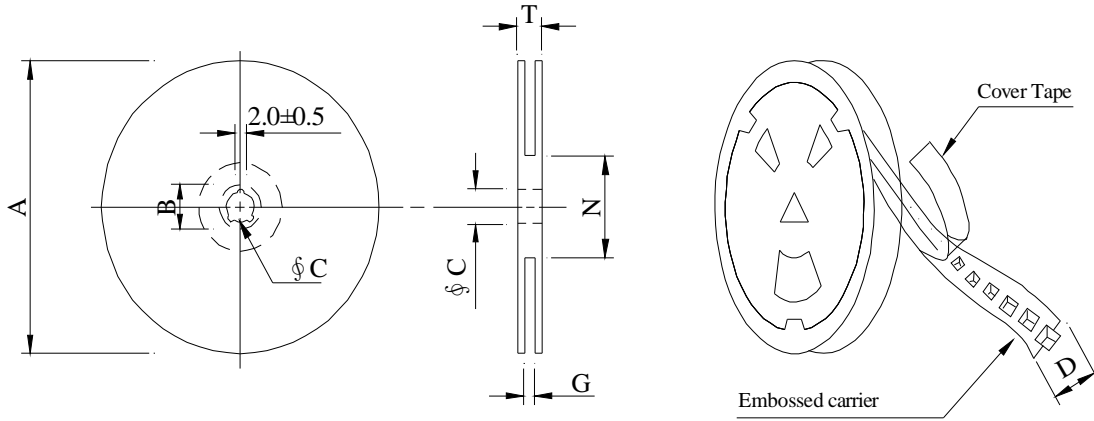
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PAGE: 5

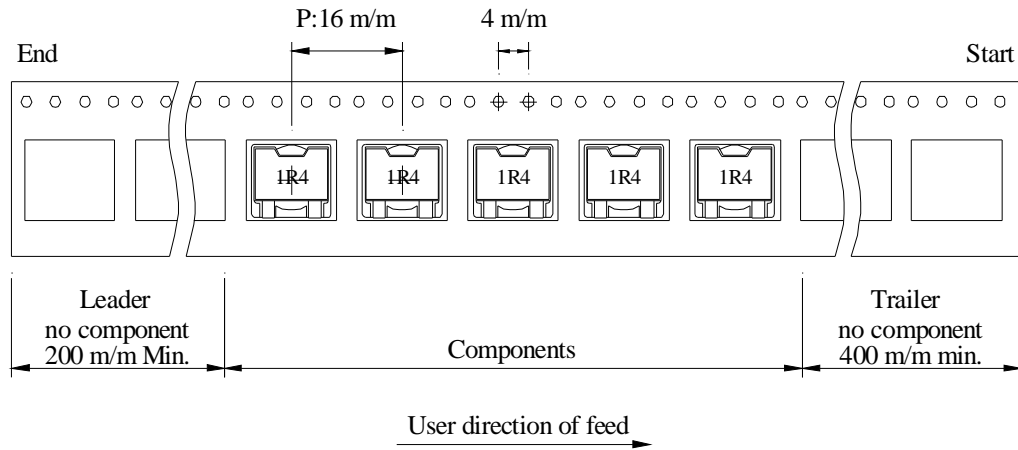
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VII . PACKAGING INFORMATION :

(1) Configuration



※Carrier tape width : D



(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	38 x 37 x 22

AR-001A

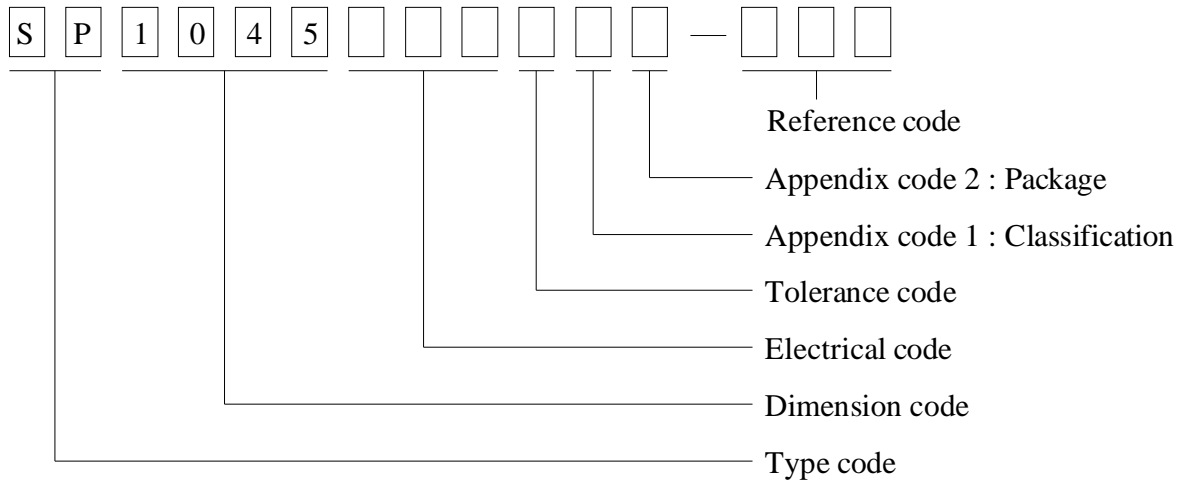
SPECIFICATION FOR APPROVAL

REF: 20091104-A

PAGE: 6

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VII . DWGING NUMBER EXPRESSION :



Appendix code 1 : Product Classification

- L : Lead Free Standard products comply with RoHS' requirements
- 1 ~ 9 : Lead Free Special products comply with RoHS' requirements

Appendix code 2 : Package Information

Code	Inner package	Inner package Q'TY	Remark
A	T.B.D.	T.B.D.	
B	T / R (Reel package)	600 pcs	

SPECIFICATION FOR APPROVAL

REF: 20091104-A

PAGE: 7

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VIII . RELIABILITY TEST :

Test item	Specification	Test condition						
Solderability	More than 95% of the terminal electrode shall be covered With fresh solder.	Preheat : 155°C / 4 hours. Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5°C Flux : Rosin Dip time : 5±0.5 seconds						
Thermal shock test (Temp. cycle)	Electrical characteristics shall not change more than ±20%	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Room temp. 15 minutes</td> <td style="text-align: center;">→</td> <td style="text-align: center;">-55 °C 30 minutes</td> </tr> <tr> <td style="text-align: center;">Room temp. 15 minutes</td> <td style="text-align: center;">→</td> <td style="text-align: center;">+135 °C 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	→	-55 °C 30 minutes	Room temp. 15 minutes	→	+135 °C 30 minutes
Room temp. 15 minutes		→	-55 °C 30 minutes					
Room temp. 15 minutes		→	+135 °C 30 minutes					
Humidity Test		Temperature : 40±2°C Humidity : 90±5% Time : 1000 hours						
High temp. Resistance test	Temperature : 135±5°C Applied current : Per spec. Time : 96 hours							

AR-001A



SPECIFICATION FOR APPROVAL

REF : 20091104-A

PAGE: 8

PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1045□□□□L□-□□□
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IX . UL CARD :

OBMW2	January 7, 1988	
Component-Magnet Wire		E104048 (S)
MITSUBISHI CABLE INDUSTRIES LTD 4-3 IKEJIRI ITAMI , HYOGO 664 JAPAN		
Mtl Dsg	Coat Typ	ANSI Type
EDW-R52	BC Medis	Oyercoat 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

QMFZ2	August 31, 2002	
Plastics-Component		E91944
NIPPON PETROCHEMICALS CO LTD		
Mterial Dsg	Color	Min Thk mm
Liquid Crystal Polyester (LCP), glass filled, furnished as pellets.		
HM-402	NC , BK	0.30
		V-0
		—
		—
		130
		130
		130
		—
		—
		—

(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 have 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.

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AR-001A

