

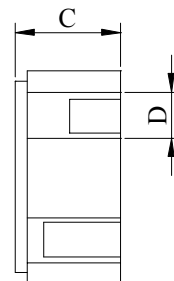
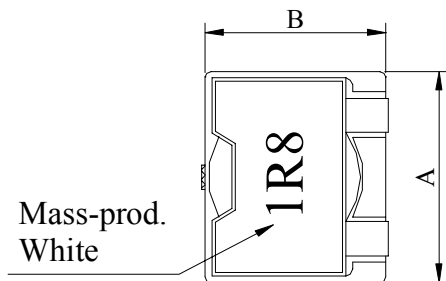
SPECIFICATION FOR APPROVAL

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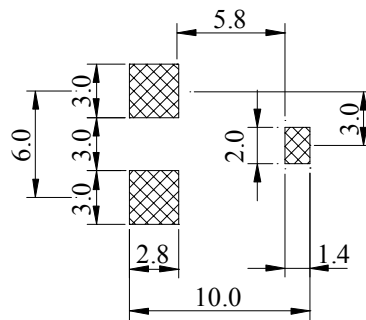
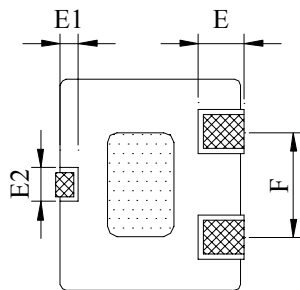
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1055□□□□2□-□□□
		ABC'S ITEM No.	

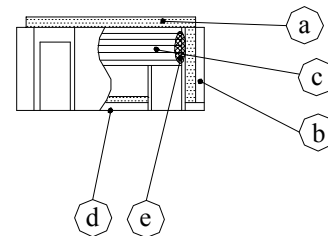
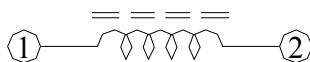
. MECHANICAL DIMENSIONS :



- A : 11.00±0.30 m/m
- B : 9.35±0.30 m/m
- C : 5.50±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



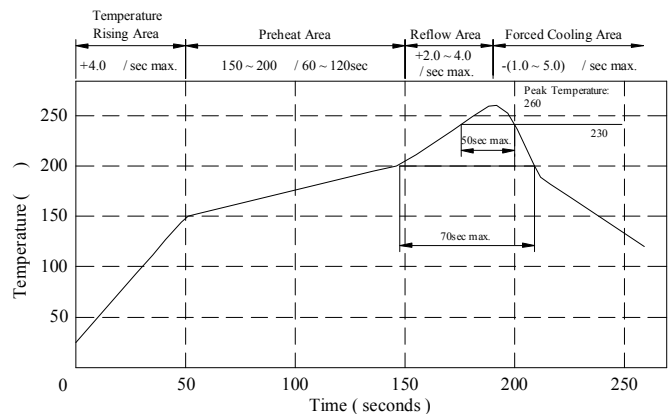
. SCHEMATIC DIAGRAM :



. 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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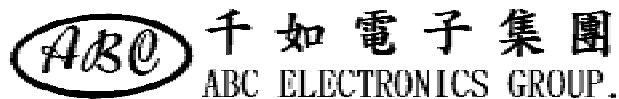
PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1055□□□□2□-□□□
		ABC'S ITEM No.	

. ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance L (μ H)	Isat (A)	Irms (A)	RDC (m Ω)	
				max.	typ.
SP1055R22Y2□-□□□	0.22 \pm 30 %	42.0	25.0	1.7	1.3
SP1055R45M2□-□□□	0.45 \pm 20 %	30.0	20.0	2.5	1.9
SP1055R80M2□-□□□	0.80 \pm 20 %	22.0	16.0	3.2	2.4
SP10551R3M2□-□□□	1.30 \pm 20 %	18.0	12.0	5.8	4.7
SP10551R8M2□-□□□	1.80 \pm 20 %	16.0	10.0	7.2	5.6
SP10552R5M2□-□□□	2.50 \pm 20 %	13.5	8.5	8.5	6.5
SP10553R2M2□-□□□	3.20 \pm 20 %	11.5	7.2	13.2	10.7
SP10554R0M2□-□□□	4.00 \pm 20 %	10.0	6.2	15.5	11.9
SP10555R0M2□-□□□	5.00 \pm 20 %	8.6	5.8	17.2	13.2

- 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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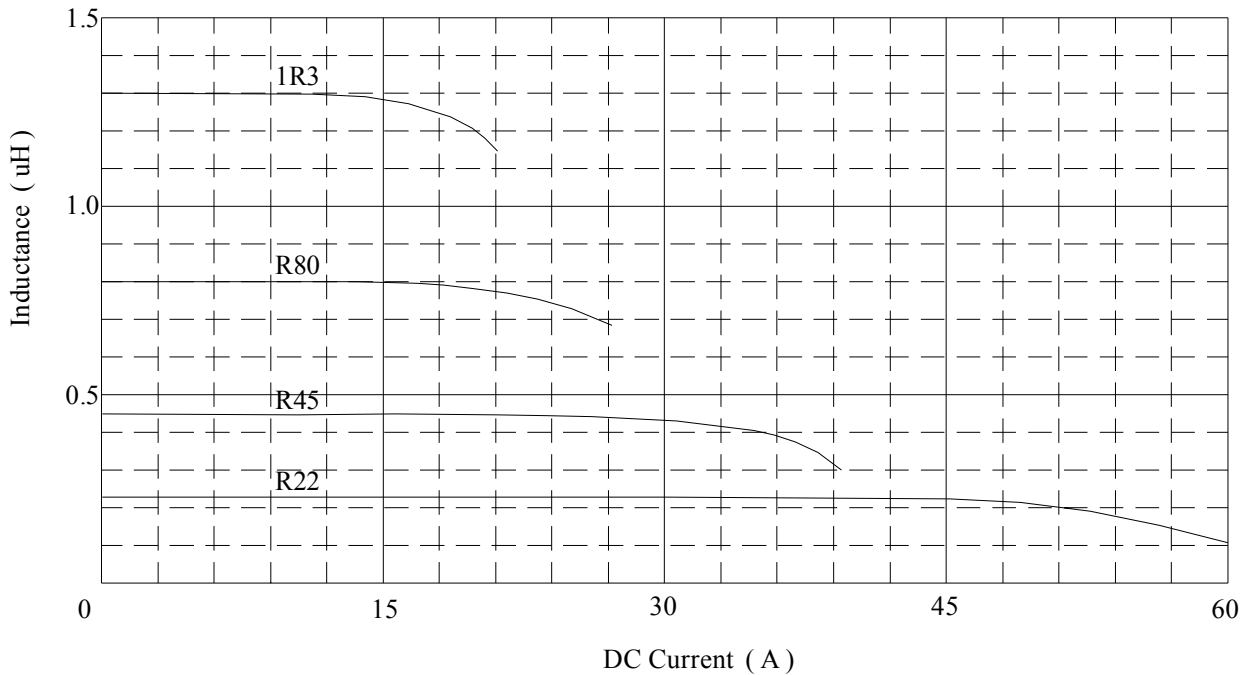
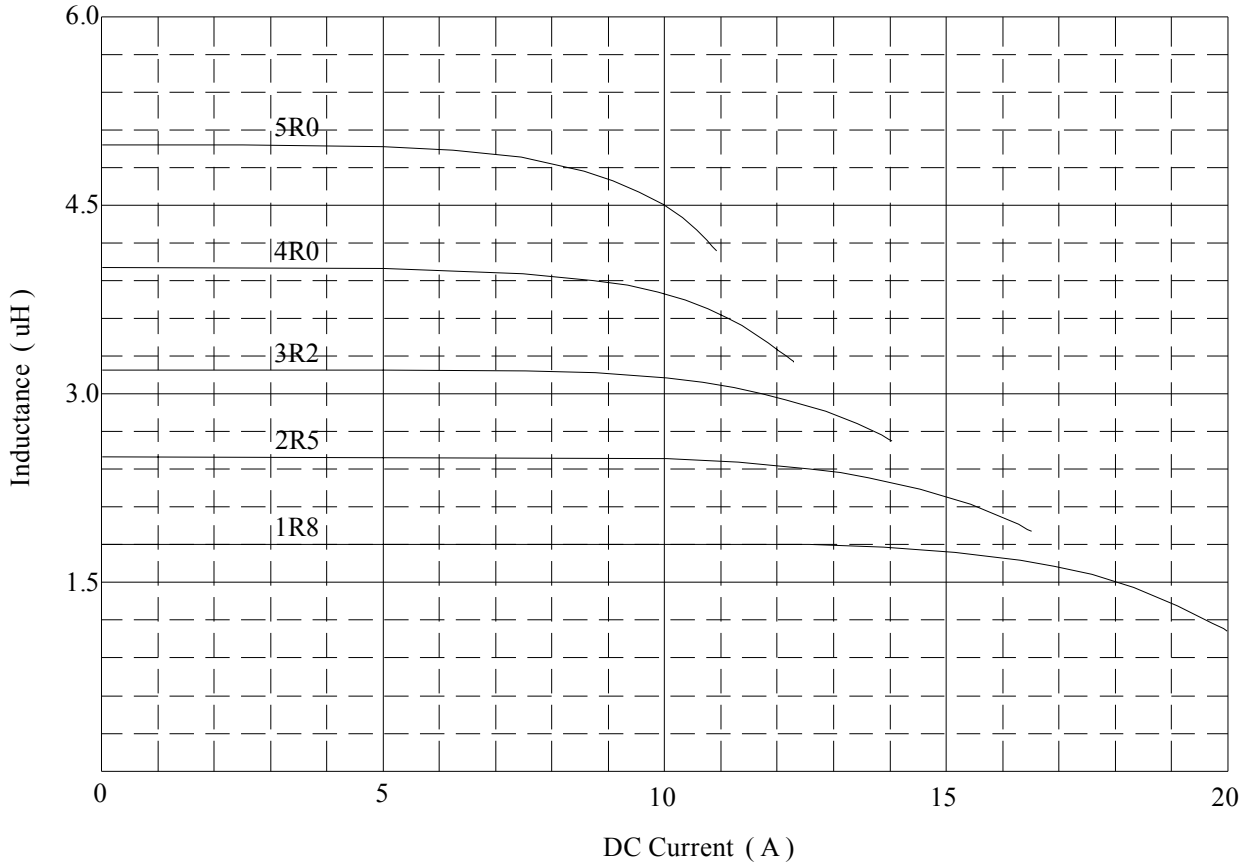
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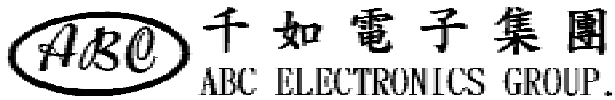
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@ Inductance VS. DC Superposition characteristics



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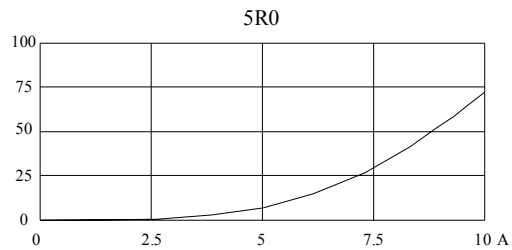
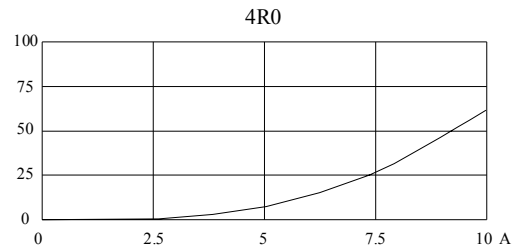
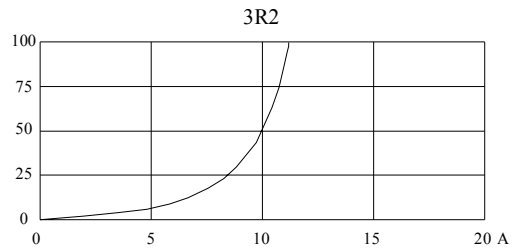
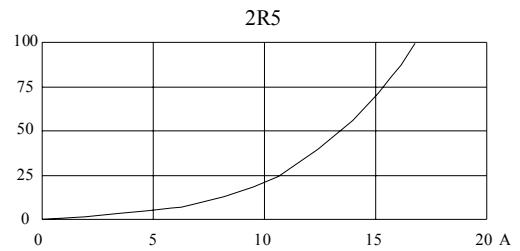
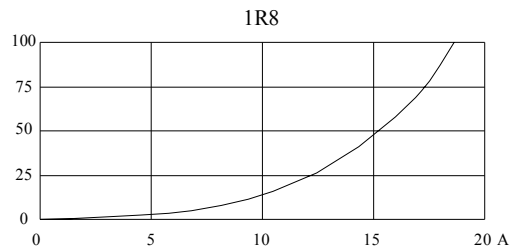
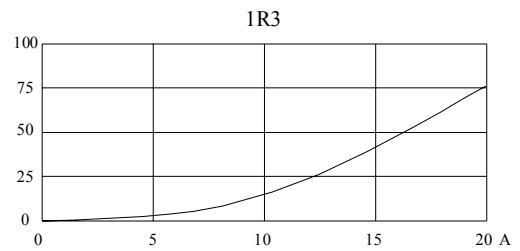
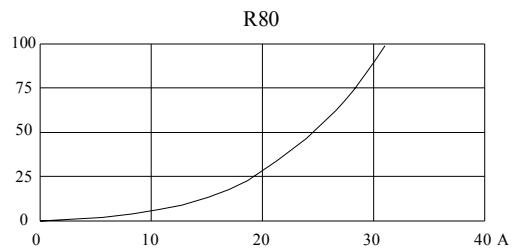
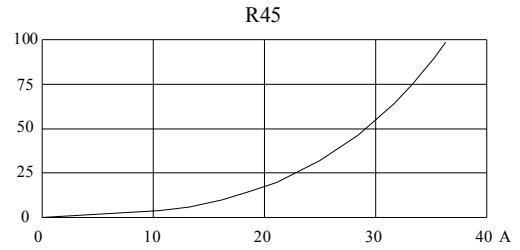
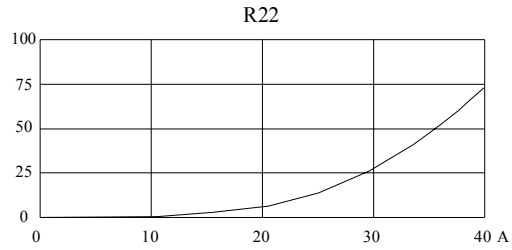
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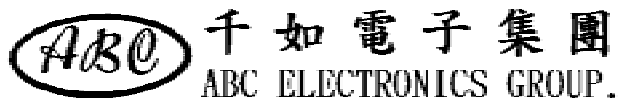
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@ DC Current VS Temperature Rise



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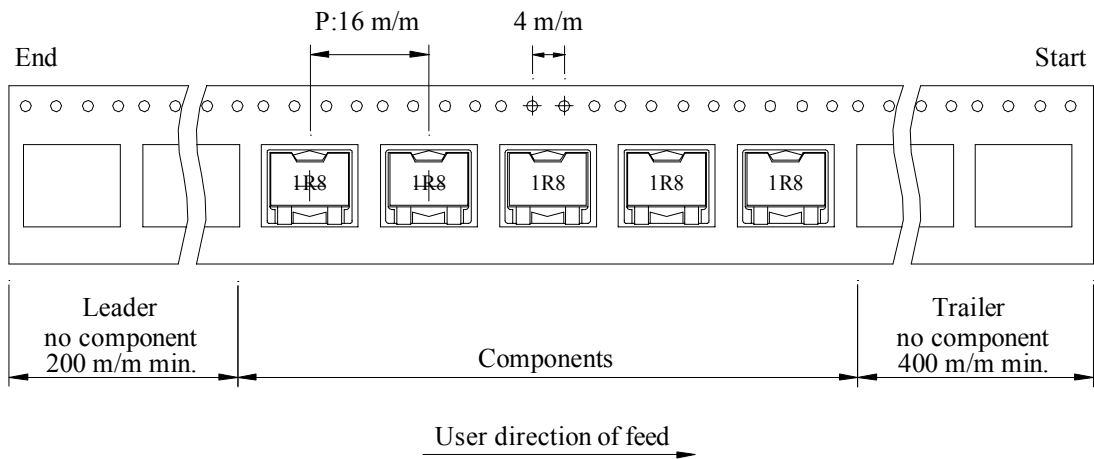
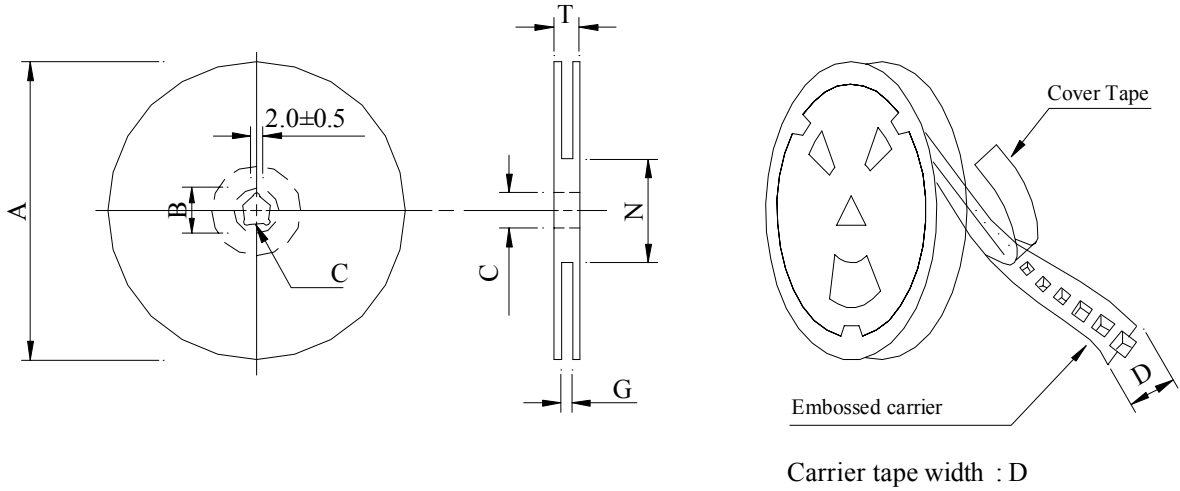
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No. ABC'S ITEM No.	SP1055□□□□2□-□□□
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PACKAGING INFORMATION :

(1) Configuration



(2) Dimensions

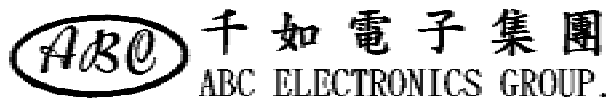
Unit:m/m

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)
SP1055	600	700	13 - 24	2,400	6.50	40 x 40 x 24

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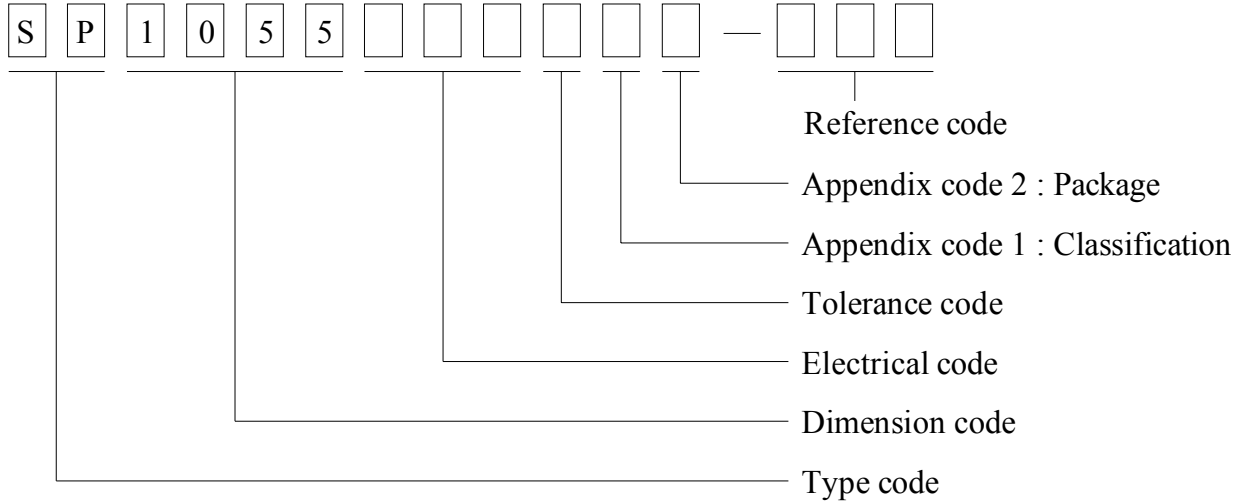
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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1055□□□□2□-□□□
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. DWGING NUMBER EXPRESSION :



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	

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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP1055□□□□2□-□□□
		ABC'S ITEM No.	

. 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. : 235±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. 15 minutes</td> <td style="text-align: center;">→</td> <td style="text-align: center;">-25±2 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;">85±2 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	→	-25±2 30 minutes	Room temp. 15 minutes	→	85±2 30 minutes
Room temp. 15 minutes		→	-25±2 30 minutes					
Room temp. 15 minutes		→	85±2 30 minutes					
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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		ABC'S ITEM No.	

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
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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 Slr	H V R	D 4 5	C T I
Liquid Crystal Polyester (LCP), glass filled, furnished as pellets.											
HM-402	NC, BK	0.30	V-0	—	—	130	130	130	—	—	—

(a)-Virgin and Re grind up to 50% have the same basic characteristics.
r1-Virgin and Re grind 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 Re grind from 26-50% by weight inclusive for the colors NC, and BK liave the same Flame, and Tensile Impact characteristics.
r3-Virgin and Re grind 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
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