

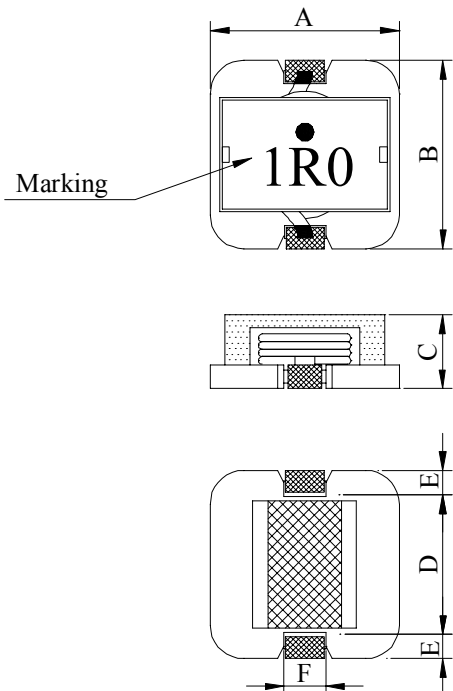
# SPECIFICATION FOR APPROVAL

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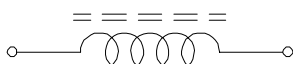
PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP2480□□□□L□-□□□
		ABC'S ITEM No.	

**. MECHANICAL DIMENSIONS :**



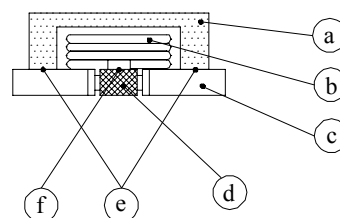
A :	22.5±0.5	m/m
B :	24.0±0.5	m/m
C :	8.7 max.	m/m
D :	17.6 typ.	m/m
E :	3.3 typ.	m/m
F :	5.0 typ.	m/m
G :	7.0 typ.	m/m
H :	15.8 typ.	m/m
I :	5.0 typ.	m/m

**. SCHEMATIC DIAGRAM :**

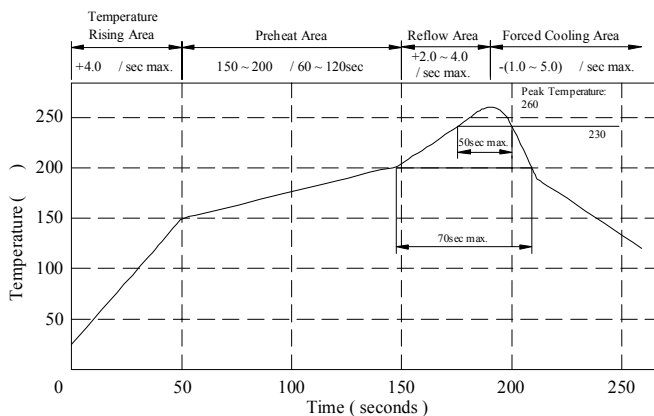


**. MATERIALS LIST :**

- a . Core : Ferrite core
- b . Wire : Ultra-Fine rectangular Enamelled copper wire
- c . Base : UL 94V-0
- d . Terminal : Cu / Ni / Sn
- e . Adhesive : Epoxy resin
- f . Solder wire : Sn / Cu
- g . Tape : Kapton class H
- h . 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. : -40 ~ +125
- b . Operating temp. : -40 ~ +125  
(Temp. rise included)
- c . Resistance to solder heat : 260 . 10 secs.

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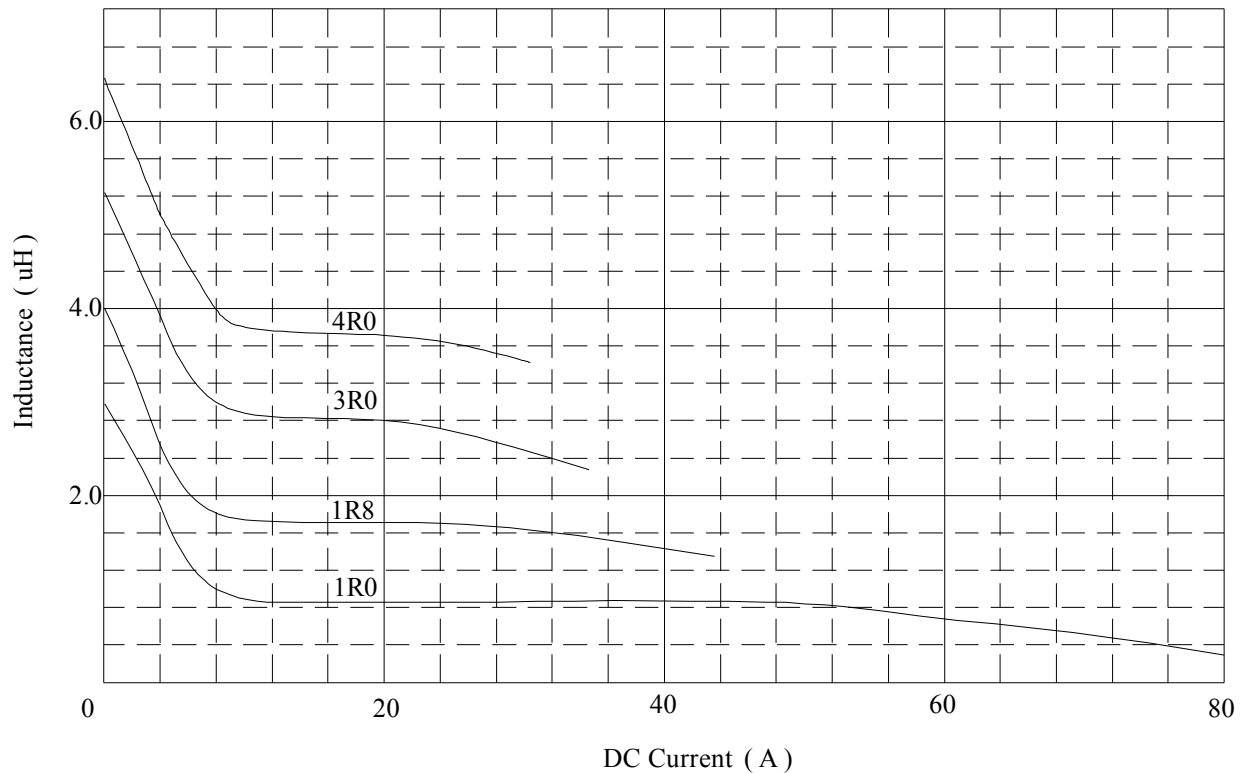
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		ABC'S ITEM No.	

**. ELECTRICAL CHARACTERISTICS :**

DWG No.	Initial Inductance L0 (uH)	Inductance at flat point L1 (uH)	Flat point ref. (A)	IDC (A)	DC Resistance (mΩ)	
					max.	typ.
SP24801R0YL□-□□□	3.0±25%	1.0±25%	8	50	1.0	0.70
SP24801R8YL□-□□□	4.0±25%	1.8±25%	8	40	1.6	1.16
SP24803R0YL□-□□□	5.3±25%	3.0±25%	8	32	2.8	2.17
SP24804R0YL□-□□□	6.5±25%	4.0±25%	8	28	3.4	2.63

- 1). □ : Packaging information ... [A]: Bulk [B]: Taping Reel
- 2). "- □□□ ":Reference code
- 3). Measured Frequency of inductance is 100 KHz / 1V
- 4). IDC : Temp . rise 40 max. & L/L0A 25% typ.

@ Inductance VS. DC Superposition characteristics



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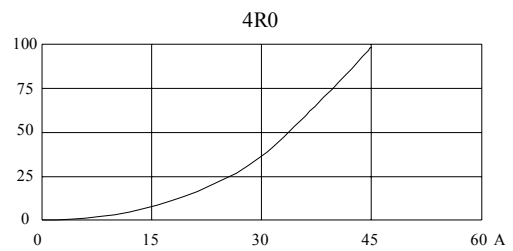
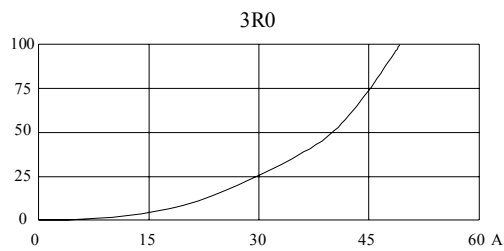
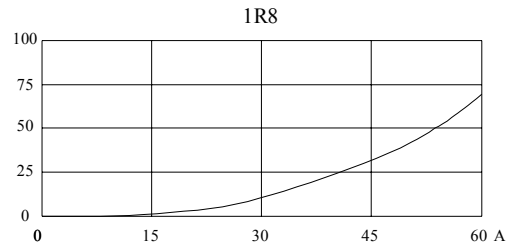
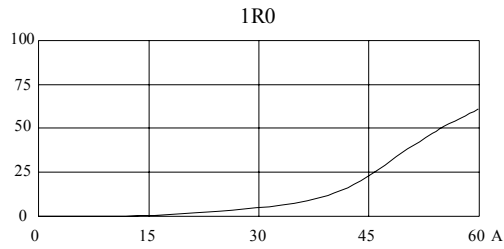
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@ DC Current VS Temperature Rise



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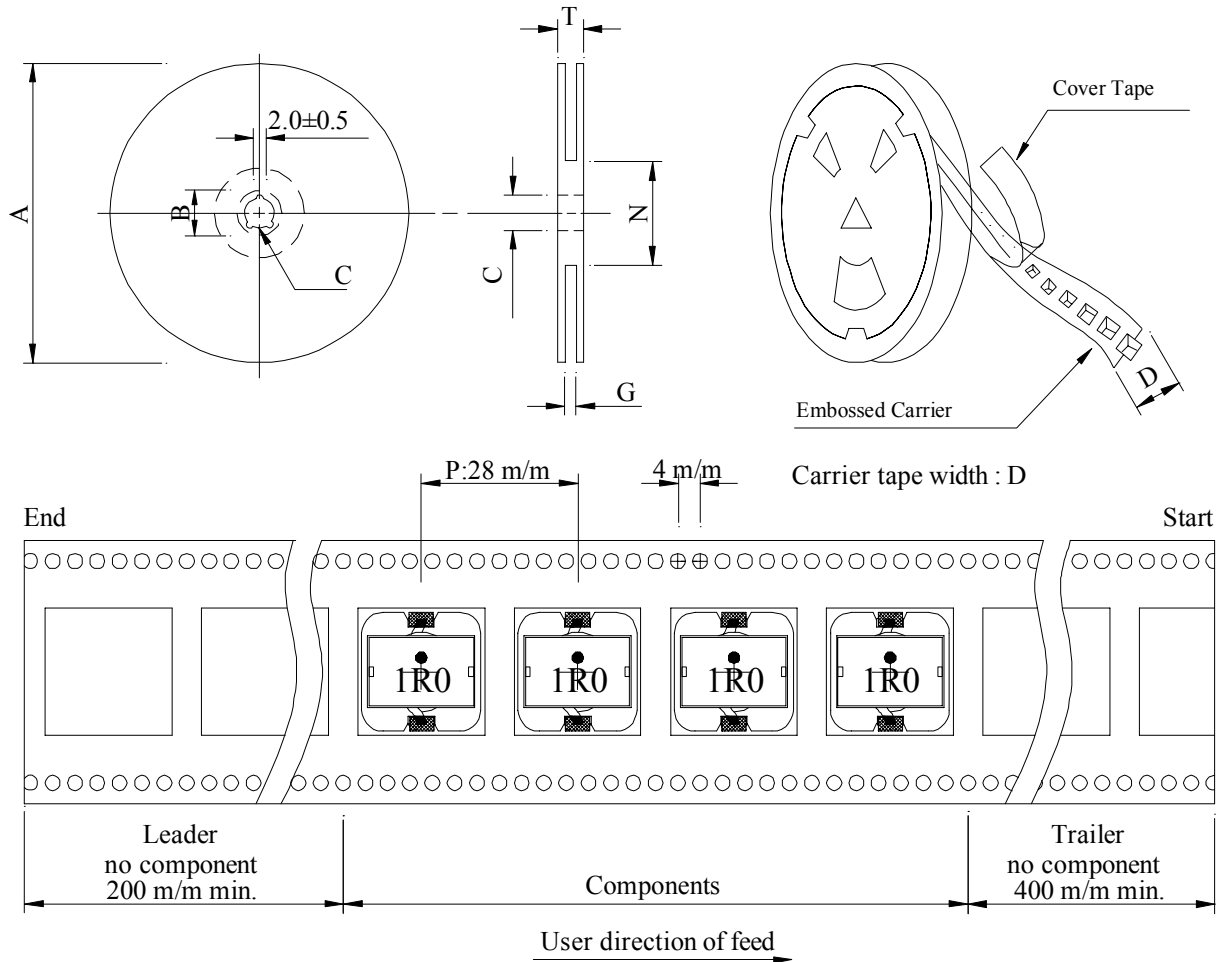
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		ABC'S ITEM No.	

**PACKAGING INFORMATION :**

( 1 ) Configuration



( 2 ) Dimensions

Unit:m/m

Style	A	B	C	D	G	N	T
13 - 44	330	21.0±0.8	13.0 <sup>+0.5</sup> <sub>-0.2</sub>	44.0±0.3	44.4 <sup>+2.0</sup> <sub>-0</sub>	100 <sup>-0</sup>	50.4 <sup>+0</sup>

( 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)
SP2480	150	2275	13 - 44	600	11.90	395 x 395 x 265

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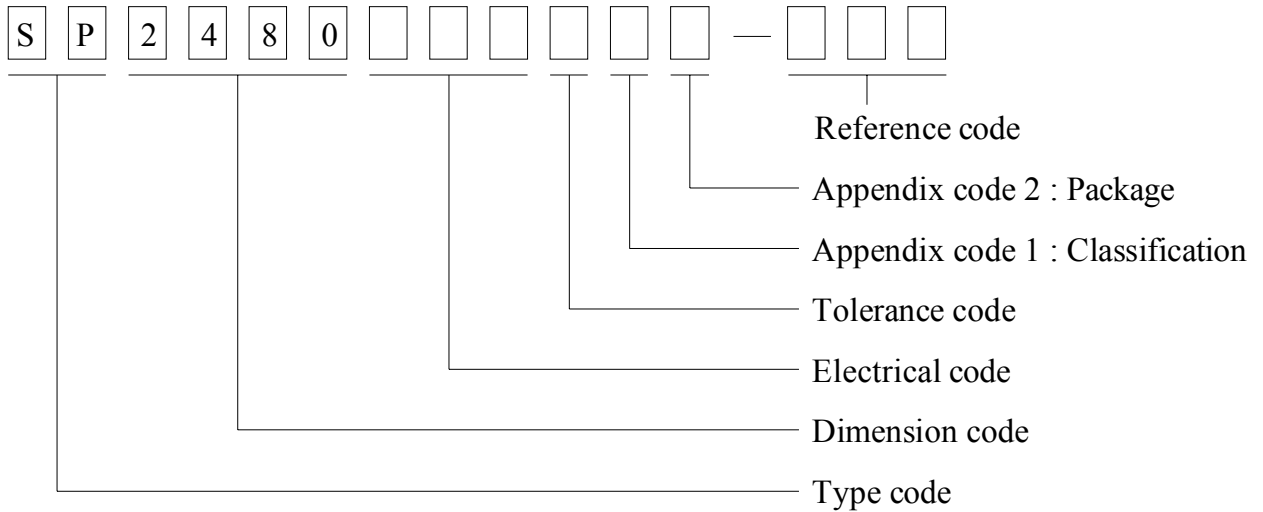
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. DWGING NUMBER EXPRESSION :



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 )	150 pcs	

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NAME	POWER INDUCTOR	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. : 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. 15 minutes</td> <td style="text-align: center;">→</td> <td style="text-align: center;"><u>-25±2</u> 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;"><u>85±2</u> 30 minutes</td> </tr> </table> <p>Total : 50 cycles</p>	Room temp. 15 minutes	→	<u>-25±2</u> 30 minutes	Room temp. 15 minutes	→	<u>85±2</u> 30 minutes
Room temp. 15 minutes	→	<u>-25±2</u> 30 minutes						
Room temp. 15 minutes	→	<u>85±2</u> 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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PROD. NAME	SHIELDED SMD POWER INDUCTOR	ABC'S DWG No.	SP2480□□□□L□-□□□
		ABC'S ITEM No.	

UL CARD :

OBMW2	July 30, 2001																					
Magnet Wire-Component		E218212																				
UNIMAC LTD																						
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mtl Dsg</th> <th style="text-align: left;">Mark Dsg</th> <th style="text-align: left;">Coat Typ</th> <th style="text-align: left;">ANSI Type</th> <th style="text-align: left;">Temp Class</th> </tr> </thead> <tbody> <tr> <td>AIW</td> <td>—</td> <td>BC Polyamide-imide</td> <td>—</td> <td>220</td> </tr> <tr> <td>FT-AIWU</td> <td>—</td> <td>Polyamide-imide</td> <td>—</td> <td>220</td> </tr> <tr> <td>SFT-AIWU</td> <td>—</td> <td>Polyamide-imide</td> <td>—</td> <td>220</td> </tr> </tbody> </table>	Mtl Dsg	Mark Dsg	Coat Typ	ANSI Type	Temp Class	AIW	—	BC Polyamide-imide	—	220	FT-AIWU	—	Polyamide-imide	—	220	SFT-AIWU	—	Polyamide-imide	—	220		
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FT-AIWU	—	Polyamide-imide	—	220																		
SFT-AIWU	—	Polyamide-imide	—	220																		
<p># - May be followed by LZ to denote Litz wire.                      Marking : Company name, material designation or marked designation on package or reel, and Recognized Component Mark.</p>																						
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QMFZ2	August 31, 2002																																					
Plastics-Component		E91944																																				
NIPPON PETROCHEMICALS CO LTD																																						
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Mterial Dsg</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Min Thk mm</th> <th style="text-align: left;">Flame Class</th> <th style="text-align: left;">H W I</th> <th style="text-align: left;">H A I</th> <th style="text-align: left;">Elec</th> <th style="text-align: left;">RTI Imp</th> <th style="text-align: left;">Mech Slr</th> <th style="text-align: left;">H V R</th> <th style="text-align: left;">D 4 5</th> <th style="text-align: left;">C T I</th> </tr> </thead> <tbody> <tr> <td>Liquid Crystal Polyester (LCP), glass filled, furnished as pellets.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>HM-402</td> <td>NC , BK</td> <td>0.30</td> <td>V-0</td> <td>—</td> <td>—</td> <td>130</td> <td>130</td> <td>130</td> <td>—</td> <td>—</td> <td>—</td> </tr> </tbody> </table>	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	—	—	—		
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<p>(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.</p>																																						
<p>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.</p>																																						
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