

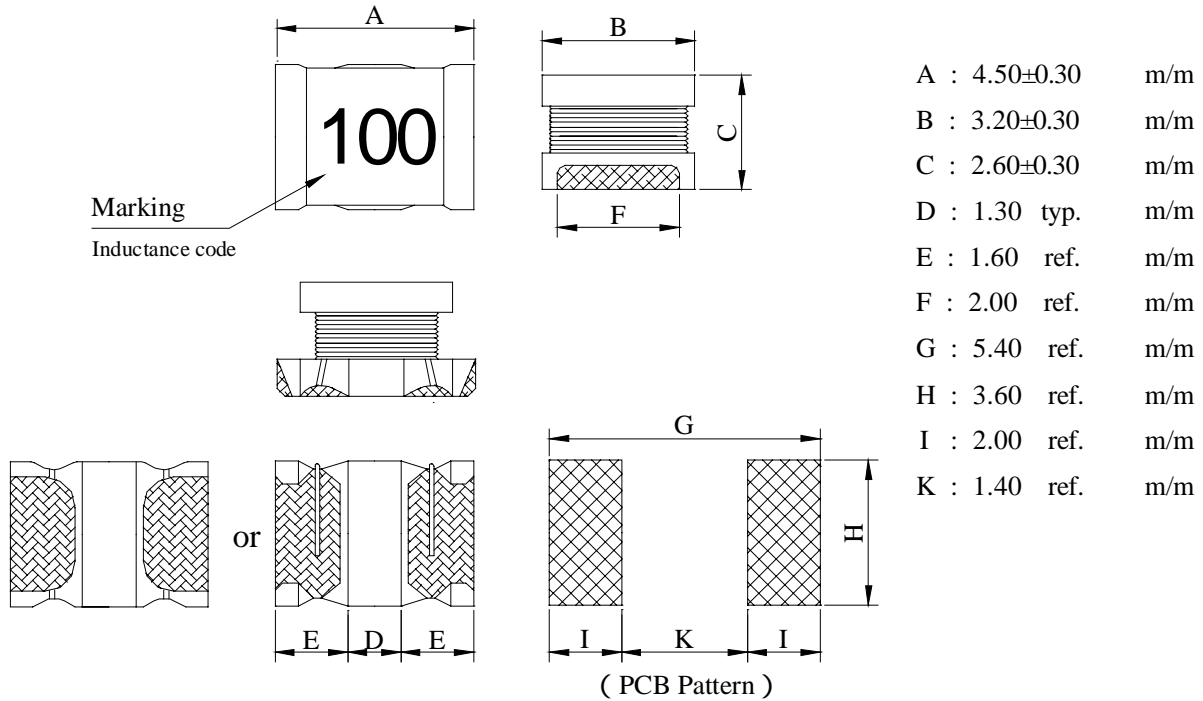
# SPECIFICATION FOR APPROVAL

REF :

PAGE: 1

PROD. NAME	SMD POWER INDUCTOR	ABC'S DWG NO. ABC'S ITEM NO.	SQ4532□□□□L□-□□□
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**. MECHANICAL DIMENSIONS :**

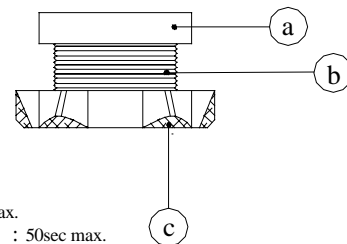


**. SCHEMATIC DIAGRAM :**



**. MATERIALS LIST :**

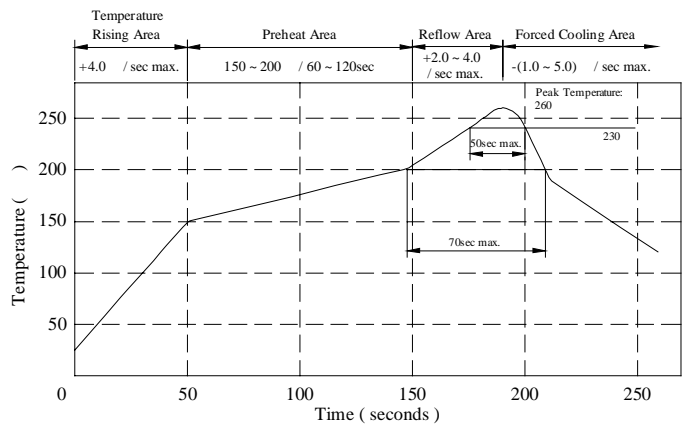
- a . Core : Ferrite core
- b . Wire : Enamelled copper wire (class F)
- c . Terminal : Ag/Ni/Sn
- d . Remark : Products comply with RoHS' requirements



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

**. GENERAL SPECIFICATION :**

- a . Temp. rese : 20 max.
- b . Storage temp. : -40 ----+125
- c . Operating temp. : -25 ----+105
- d . Rated current (Irms) :  
 Current cause inductance drop within 10%
- e . Resistance to solder heat : 260 .10 secs.



AE-001A

# SPECIFICATION FOR APPROVAL

REF :

PAGE: 2

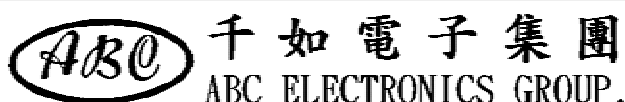
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## . ELECTRICAL CHARACTERISTICS :

DWG No.	Inductance ( $\mu$ H)	Q ref.	Test Freq ( Hz )		SRF (MHz) nom.	RDC ( $\Omega$ ) max.	Irms 1 (mA)max. T=20	Irms 2 (mA)max. T=40
			L	Q				
SQ45321R0ML□-□□□	1.00 $\pm$ 20%	40	1M	1M	165.0	0.080	1400	1800
SQ45321R5ML□-□□□	1.50 $\pm$ 20%	42	1M	1M	130.0	0.090	1350	1750
SQ45321R8ML□-□□□	1.80 $\pm$ 20%	45	1M	1M	100.0	0.100	1300	1700
SQ45322R2ML□-□□□	2.20 $\pm$ 20%	40	1M	1M	80.0	0.110	1250	1600
SQ45322R7ML□-□□□	2.70 $\pm$ 20%	40	1M	1M	63.0	0.120	1200	1500
SQ45323R3ML□-□□□	3.30 $\pm$ 20%	45	1M	1M	58.0	0.130	1000	1400
SQ45323R9ML□-□□□	3.90 $\pm$ 20%	40	1M	1M	54.0	0.140	960	1320
SQ45324R7ML□-□□□	4.70 $\pm$ 20%	36	1M	1M	45.0	0.150	940	1240
SQ45325R6ML□-□□□	5.60 $\pm$ 20%	36	1M	1M	41.0	0.180	920	1180
SQ45326R8ML□-□□□	6.80 $\pm$ 20%	36	1M	1M	37.0	0.200	860	1100
SQ45328R2ML□-□□□	8.20 $\pm$ 20%	36	1M	1M	34.0	0.250	780	1000
SQ4532100ML□-□□□	10.00 $\pm$ 20%	48	1M	1M	30.0	0.300	750	950
SQ4532120ML□-□□□	12.00 $\pm$ 20%	48	1M	1M	28.0	0.420	700	800
SQ4532150ML□-□□□	15.00 $\pm$ 20%	45	1M	1M	26.0	0.500	650	730
SQ4532180ML□-□□□	18.00 $\pm$ 20%	42	1M	1M	22.0	0.600	570	680
SQ4532220KL□-□□□	22.00 $\pm$ 10%	50	1M	1M	20.0	0.700	460	630
SQ4532270KL□-□□□	27.00 $\pm$ 10%	50	1M	1M	19.0	0.900	360	520
SQ4532330KL□-□□□	33.00 $\pm$ 10%	55	1M	1M	18.0	1.100	330	430
SQ4532390KL□-□□□	39.00 $\pm$ 10%	60	1M	1M	17.0	1.300	310	410
SQ4532470KL□-□□□	47.00 $\pm$ 10%	60	1M	1M	15.0	1.500	285	390
SQ4532560KL□-□□□	56.00 $\pm$ 10%	58	1M	1M	14.0	1.600	270	385
SQ4532680KL□-□□□	68.00 $\pm$ 10%	58	1M	1M	11.0	2.100	230	330
SQ4532820KL□-□□□	82.00 $\pm$ 10%	60	1M	1M	11.0	2.200	215	300
SQ4532101KL□-□□□	100.00 $\pm$ 10%	60	1M	796K	10.0	2.500	200	270
SQ4532121KL□-□□□	120.00 $\pm$ 10%	60	1M	796K	9.0	3.000	180	240
SQ4532151KL□-□□□	150.00 $\pm$ 10%	55	1M	796K	8.5	3.700	165	220
SQ4532181KL□-□□□	180.00 $\pm$ 10%	55	1M	796K	7.0	4.500	145	200
SQ4532221KL□-□□□	220.00 $\pm$ 10%	45	1M	796K	6.3	5.400	130	185
SQ4532271KL□-□□□	270.00 $\pm$ 10%	50	1M	796K	6.0	8.000	110	140
SQ4532331KL□-□□□	330.00 $\pm$ 10%	55	1M	796K	5.8	11.500	100	120
SQ4532391KL□-□□□	390.00 $\pm$ 10%	50	1M	796K	5.2	13.000	95	110
SQ4532471KL□-□□□	470.00 $\pm$ 10%	50	1K	796K	5.0	14.200	85	105
SQ4532561KL□-□□□	560.00 $\pm$ 10%	53	1K	796K	4.5	15.500	80	100
SQ4532681KL□-□□□	680.00 $\pm$ 10%	45	1K	796K	3.5	16.800	75	90
SQ4532821KL□-□□□	820.00 $\pm$ 10%	50	1K	796K	2.8	20.000	70	85
SQ4532102KL□-□□□	1000.00 $\pm$ 10%	30	1K	252K	2.5	30.000	60	70
SQ4532122KL□-□□□	1200.00 $\pm$ 10%	30	1K	252K	2.3	33.500	45	60
SQ4532152KL□-□□□	1500.00 $\pm$ 10%	35	1K	252K	2.0	38.500	40	55
SQ4532182KL□-□□□	1800.00 $\pm$ 10%	35	1K	252K	1.8	44.000	35	50
SQ4532222KL□-□□□	2200.00 $\pm$ 10%	30	1K	252K	1.6	63.000	30	40

- 1) □ : Packaging information... [A] : Bulk [B]: Taping reel
- 2) "- □□□ " : Reference code
- 3) Irms1 Based on Temperature rise T=20 max.
- 4) Irms2 Based on Temperature rise T=40 max.
- 5) Inductance drop 10% max. at rated Irms

AE-001A



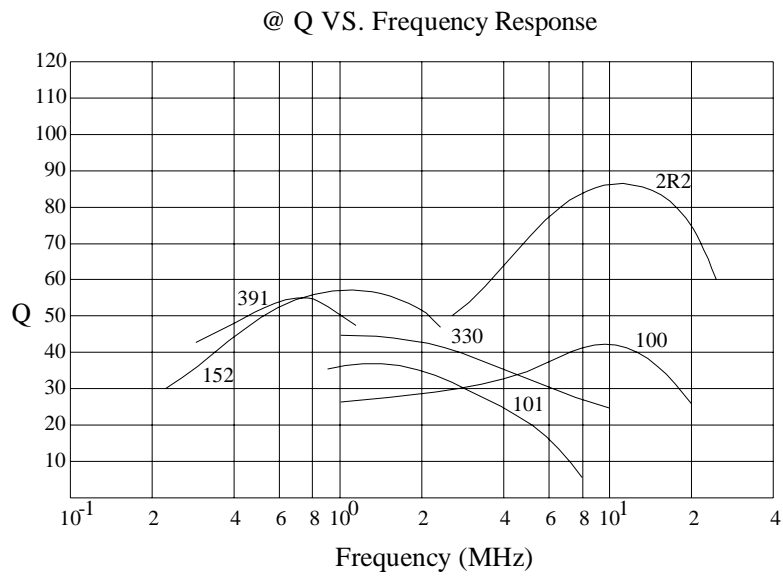
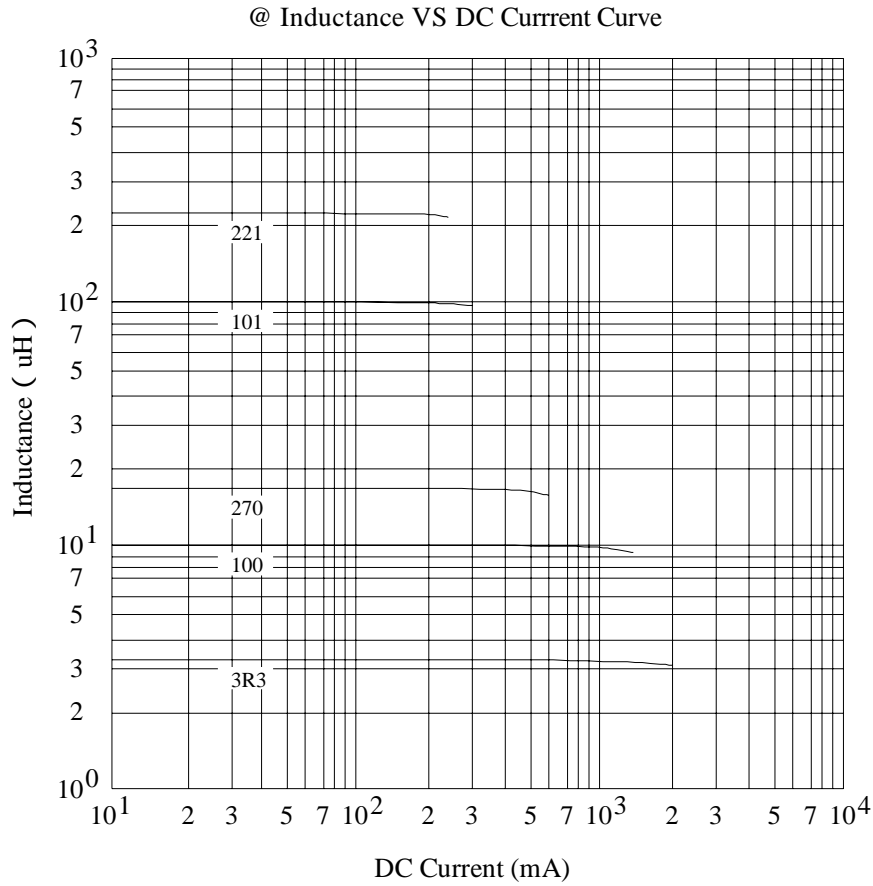
# SPECIFICATION FOR APPROVAL

REF :

PAGE: 3

PROD. NAME	SMD POWER INDUCTOR	ABC'S DWG NO.	SQ4532□□□□L□-□□□
		ABC'S ITEM NO.	

. CURVE :



AE-001A

# SPECIFICATION FOR APPROVAL

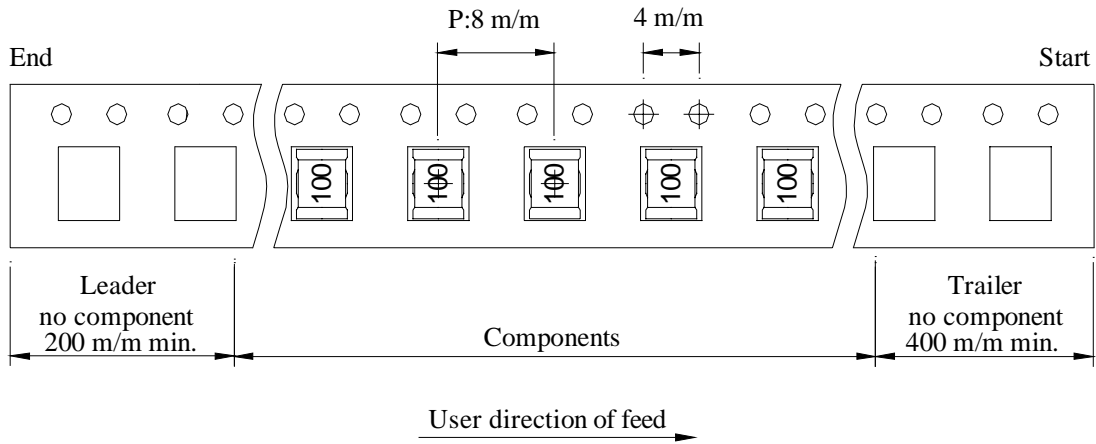
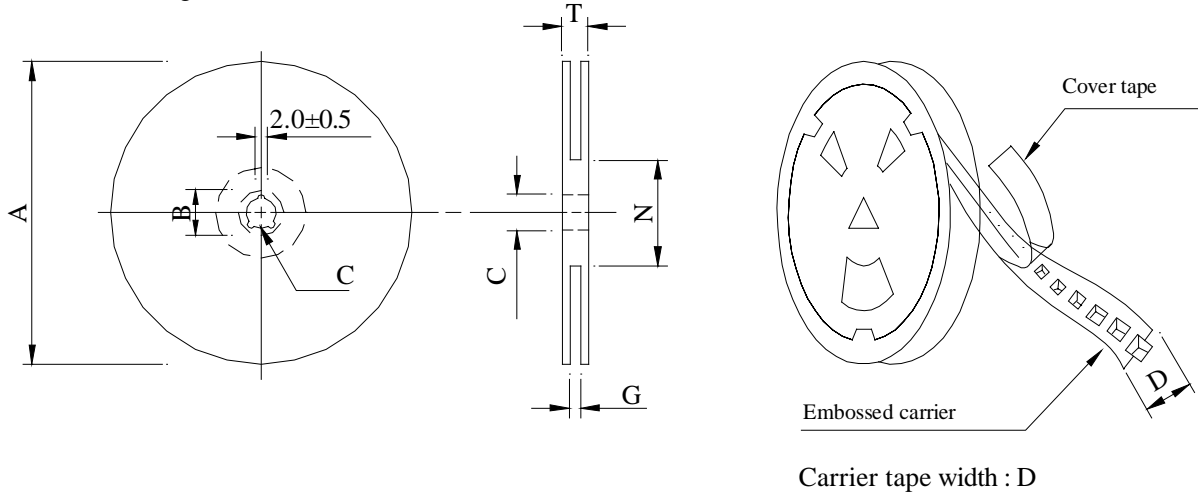
REF :

PAGE: 4

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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
07 - 12	178	21±0.8	13	12	14 <sup>+0</sup>	50 <sup>-0</sup>	16.5
13 - 12	330	21±0.8	13	12	14 <sup>+0</sup>	50 <sup>-0</sup>	18.4

( 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)
SQ4532	500	130	07 - 12	20,000	7.20	42 x 41 x 24
SQ4532	2000	540	13 - 04	16,000	6.50	40 x 40 x 24

AE-001A

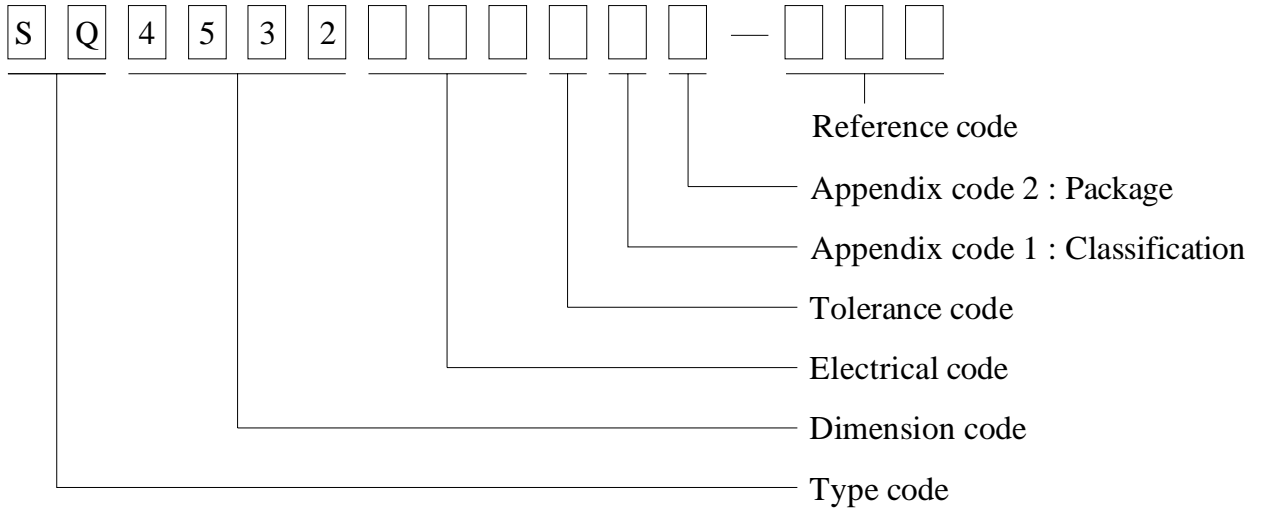
# SPECIFICATION FOR APPROVAL

REF :

PAGE: 5

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		ABC'S ITEM NO.	

. 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 )	500 pcs	
C	T / R ( Reel package )	2000 pcs	

AE-001A



# SPECIFICATION FOR APPROVAL

REF :

PAGE: 6

PROD. NAME	SMD POWER INDUCTOR	ABC'S DWG NO.	SQ4532□□□□L□-□□□
		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 : 105±2 Applied current : Per spec. Time : 500 hours							

AE-001A



# SPECIFICATION FOR APPROVAL

REF :

PAGE: 7

PROD. NAME	SMD POWER INDUCTOR	ABC'S DWG NO.	SQ4532□□□□L□-□□□
		ABC'S ITEM NO.	

UL CARD :

OBMW2 September 8, 2000

Magnet Wire-Component

JUNG SHING WIRE CO LTD E174837

231 CHUNG CHENG RD, SEC 3 JEN-TEH HSIANG, TAINAN  
HSIEN TAIWAN

Mtl Dsg	Mark Dsg	BC	Coat Typ	OC	ANSI Type	Temp Class
AIW	---	Polyamideimide	---	---	MW81-C	220
CFUEWB	---	Polyurethane	---	---	MW75C	130
EIAIW	---	Polyesterimide	Polyamideimide	---	MW35C	200
EILOCKY	---	Polyesterimide	Polyamide	---	---	180
EILOCKW	---	Polyesterimide	Modified Epoxy	---	---	200
EIW	---	Polyesterimide	---	---	---	220
EIW-2	---	Polyesterimide	---	---	MW74-C	200
FL.EILOCKY	---	Modified Polyester	Polyamide	---	---	155
LSFFW	---	Polyurethane	---	---	MW79-C	155
LSUEW	---	Polyurethane	---	---	---	130
PEW	---	Polyester	---	---	---	155
PEY	---	Polyester	Nylon	---	MW24-C	155
SF.FLW	---	Modified Polyester	---	---	MW26C	155
SF.EIW	---	Polyesterimide	---	---	MW77C	180
SF.BY@	---	Modified Polyester	Nylon	---	MW27-C	155
SF.FLY@	---	Modified Polyester	Nylon	---	MW27-C	155
SF.BLOCKBS	---	Modified Polyester	Modified Polyamide	---	---	155
SF.EILOCKY#	---	Polyesterimide	Polyamide	---	---	180
SF.EILOCKBS	---	Polyesterimide	Modified Polyamide	---	---	180
SF.BW@	---	Modified Polyester	---	---	MW26C	155
SFFW	---	Polyurethane	---	---	MW79	155

287806002 Page 1 of 2

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committed to quality service

Mtl Dsg	Mark Dsg	BC	Coat Typ	OC	ANSI Type	Temp Class
SFFY	---	Polyurethane	Polyamide	---	MW80C	155
UEW-1	---	Polyurethane	---	---	MW2-C	105
UEW-2	---	Polyurethane	---	---	---	130
UEW-4	---	Polyurethane	---	---	MW75C	130
UEY	---	Polyurethane	Nylon	---	MW28-C	130
UEY-2	---	Polyurethane	Polyamide	---	MW28-C	130

@ - May be suffixed by LZ; # - May be suffixed by LZ, EL or LZL.  
LZ - Signifies magnet wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signifies base coated magnet wire twisted together and covered with top coat overall.

Marking: Company name or trademarks JSW or 榮星電線, material designation or marked designation on packaed or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions  
For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

287806002 Page 2 of 2

OBMW2E174837  
September 8, 2000