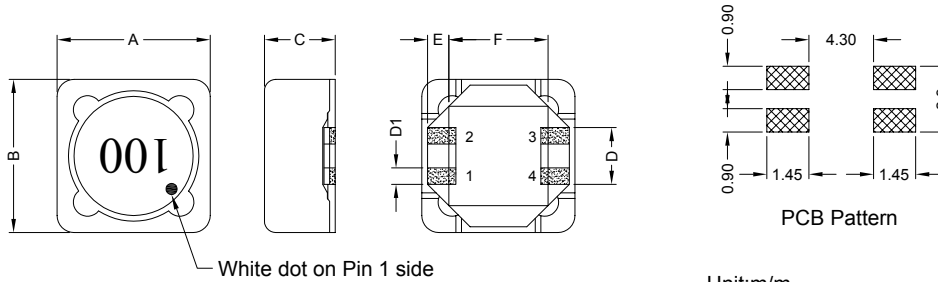


### 1. PART NO. EXPRESSION :

SPB0704100MZ F - □ □  
 (a) (b) (c) (d)(e)(f) (g)

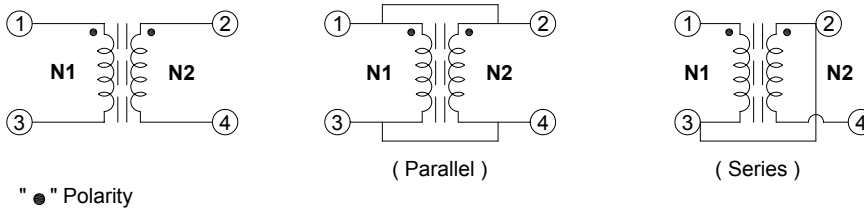
- (a) Series code
- (b) Dimension code
- (c) Inductance code : 100 = 10uH
- (d) Tolerance code : M = ±20%, Y = ±30%
- (e) Z : Standard part
- (f) F : RoHS Compliant
- (g) 11 ~ 99 : Internal controlled number

### 2. CONFIGURATION & DIMENSIONS :

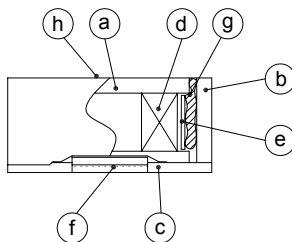


A	B	C	D	D1	E	F
7.30±0.20	7.60±0.20	4.45 Max.	2.70 Ref.	0.70 Ref.	1.25 Ref.	4.50 Ref.

### 3. SCHEMATIC :



### 4. MATERIALS :



- (a) Core : DR Ferrite Core
- (b) Core : RI Ferrite Core
- (c) Base : LCP-E4008
- (d) Wire : Enamelled Copper Wire
- (e) Tape : #56
- (f) Terminal : Tinned Copper Plate
- (g) Adhesive : Epoxy Resin
- (h) Ink : Bon Marque



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NOTE : Specifications subject to change without notice. Please check our website for latest information.



## 5. GENERAL SPECIFICATION :

- a)  $\Delta L/L_0A$  : 30% Typ. at Isat
- b) Temp. Rise : 40°C Typ. at Irms
- c) Hi-Pot (N1-N2) : 200Vac / 3mA / 1sec
- d) Operating temp. : -40°C to +125°C
- e) Storage temp. : -40°C to +125°C
- f) Resistance to solder heat : 260°C.10secs

## 6. ELECTRICAL CHARACTERISTICS :

Part No.	Inductance ( $\mu H$ ) Ref.	Test Frequency (Hz)	Parallel				Series			
			Inductance ( $\mu H$ ) Ref.	RDC ( $\Omega$ ) Max.	Isat (A)	Irms (A)	Inductance ( $\mu H$ ) Ref.	RDC ( $\Omega$ ) Max.	Isat (A)	Irms (A)
SPB0704R80YZF-□□	0.80	0.25V/100K	0.752	0.0132	10.20	5.33	3.008	0.0528	5.10	2.660
SPB07041R5YZF-□□	1.50	0.25V/100K	1.422	0.0188	7.00	4.96	5.688	0.0752	3.80	2.480
SPB07042R2YZF-□□	2.20	0.25V/100K	1.986	0.0204	6.60	4.66	7.944	0.0816	3.38	2.330
SPB07043R3YZF-□□	3.30	0.25V/100K	3.396	0.0258	5.20	3.94	13.580	0.1032	2.50	1.970
SPB07044R7YZF-□□	4.70	0.25V/100K	5.182	0.0354	4.37	3.34	20.730	0.1416	2.15	1.670
SPB07046R8YZF-□□	6.80	0.25V/100K	7.344	0.0492	3.50	2.60	29.380	0.1968	1.75	1.300
SPB07048R2YZF-□□	8.20	0.25V/100K	8.566	0.0564	3.20	2.53	34.260	0.2256	1.58	1.270
SPB0704100MZF-□□	10.0	0.25V/100K	9.882	0.0606	3.05	2.41	39.530	0.2424	1.50	1.200
SPB0704150MZF-□□	15.0	0.25V/100K	16.090	0.0948	2.40	2.00	64.360	0.3792	1.20	1.000
SPB0704220MZF-□□	22.0	0.25V/100K	21.730	0.1272	1.95	1.75	86.920	0.5088	1.02	0.874
SPB0704330MZF-□□	33.0	0.25V/100K	33.010	0.2052	1.60	1.30	132.000	0.8208	0.81	0.650
SPB0704470MZF-□□	47.0	0.25V/100K	49.640	0.2940	1.32	1.05	198.600	1.1760	0.67	0.525
SPB0704680MZF-□□	68.0	0.25V/100K	69.670	0.4056	1.18	0.95	278.700	1.6224	0.59	0.475
SPB0704820MZF-□□	82.0	0.25V/100K	80.950	0.4920	1.09	0.83	323.800	1.9680	0.55	0.415
SPB0704101MZF-□□	100.0	0.25V/100K	101.600	0.5736	0.96	0.75	406.400	2.2944	0.48	0.375
SPB0704151MZF-□□	150.0	0.25V/100K	150.000	0.8352	0.78	0.60	600.000	3.3408	0.39	0.300
SPB0704221MZF-□□	220.0	0.25V/100K	227.000	1.2192	0.65	0.50	908.000	4.8768	0.32	0.250
SPB0704331MZF-□□	330.0	0.25V/100K	335.600	2.1720	0.53	0.40	1342.000	8.6880	0.25	0.200
SPB0704471MZF-□□	470.0	0.25V/100K	465.300	2.6520	0.46	0.35	1861.000	10.6080	0.22	0.175
SPB0704681MZF-□□	680.0	0.25V/100K	671.200	4.2480	0.37	0.28	2685.000	16.9920	0.175	0.140
SPB0704821MZF-□□	820.0	0.25V/100K	812.700	4.6680	0.35	0.26	3251.000	18.6720	0.17	0.130
SPB0704102MZF-□□	1000.0	0.25V/100K	1009.000	5.1840	0.31	0.24	4036.000	20.7360	0.16	0.120

Tolerance code : M =  $\pm 20\%$   
 Y =  $\pm 30\%$



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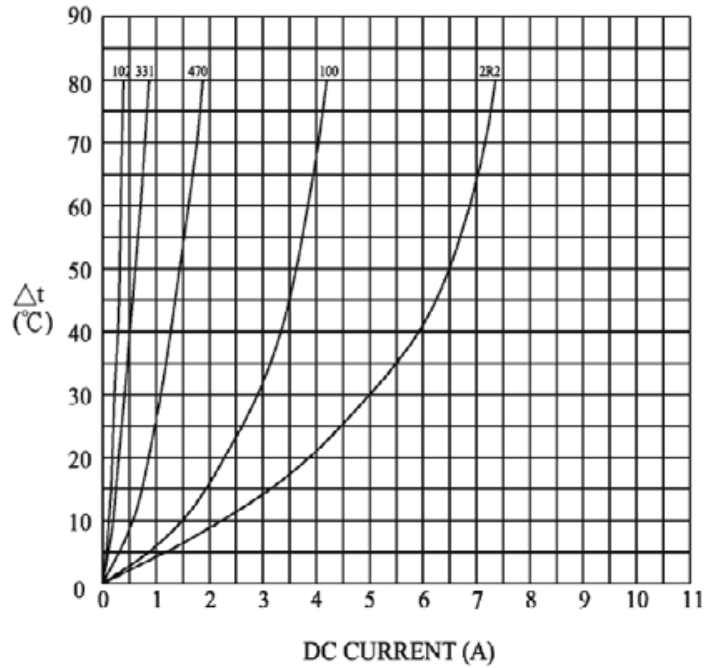
17.12.2010



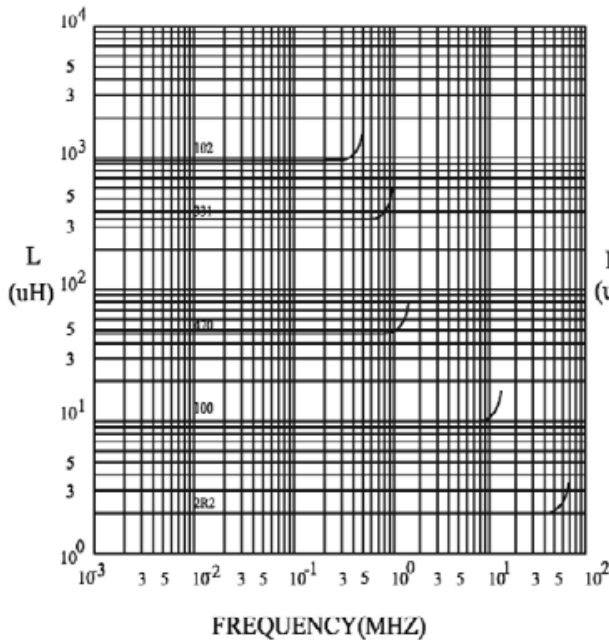
**SUPERWORLD ELECTRONICS (S) PTE LTD**

## 7. CHARACTERISTICS CURVES : ( PARALLEL )

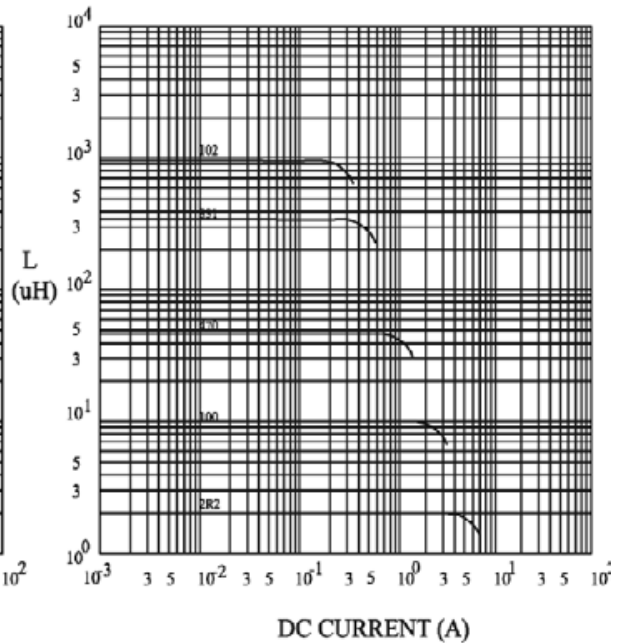
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



**RoHS Compliant**

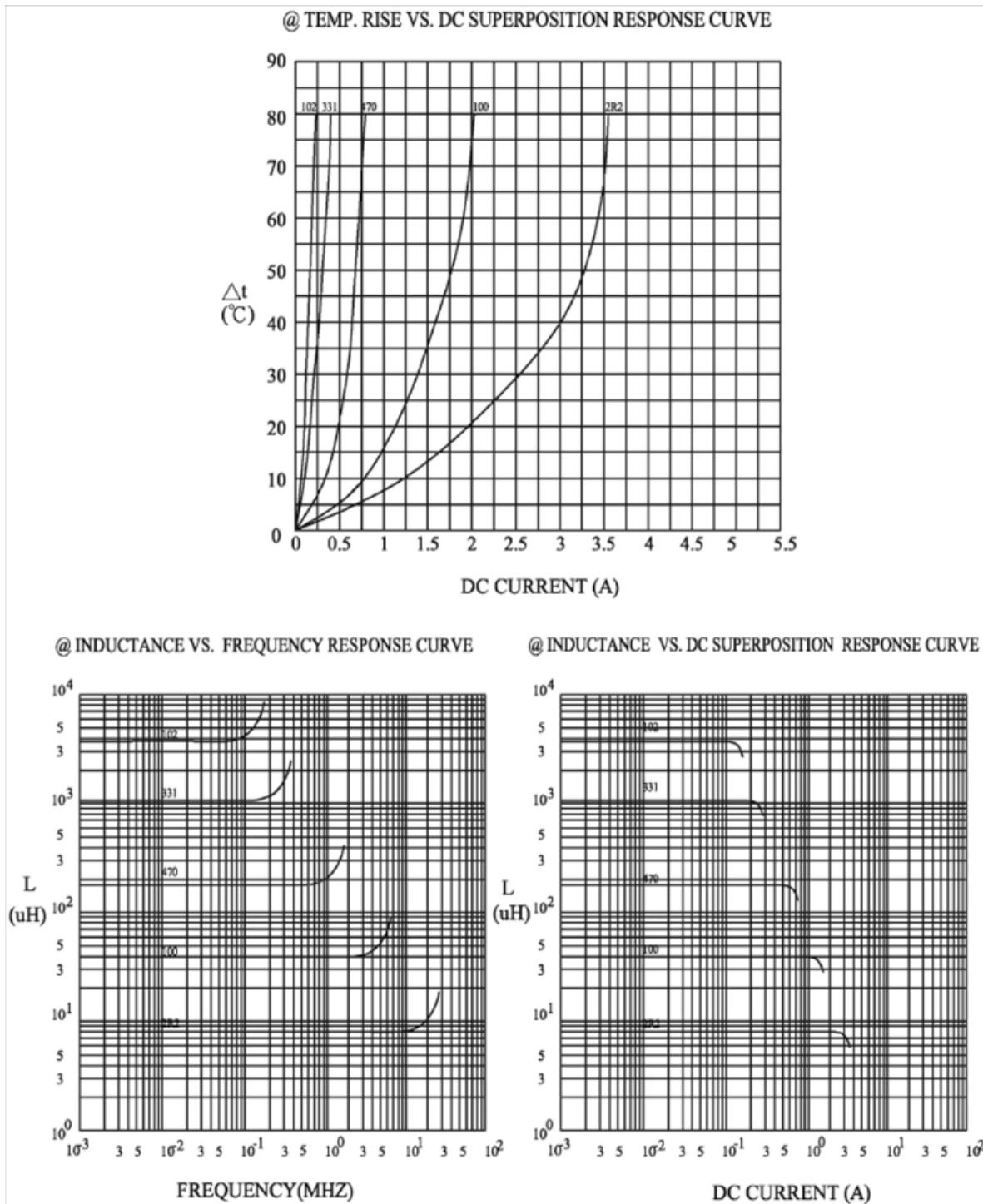
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## 7. CHARACTERISTICS CURVES : ( SERIES )



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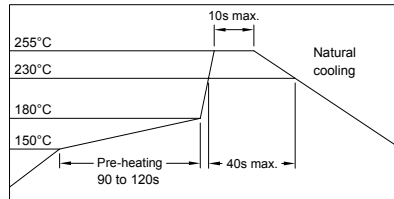
NOTE : Specifications subject to change without notice. Please check our website for latest information.

17.12.2010



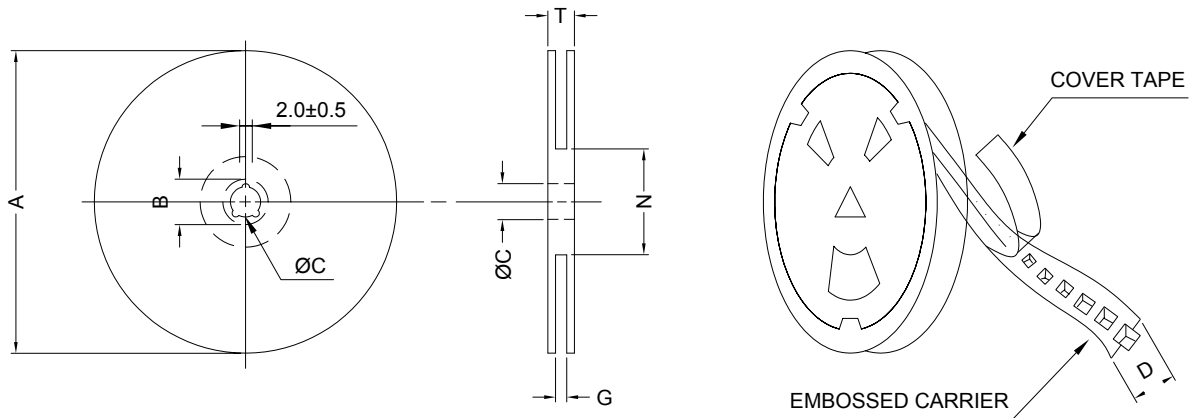
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### RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

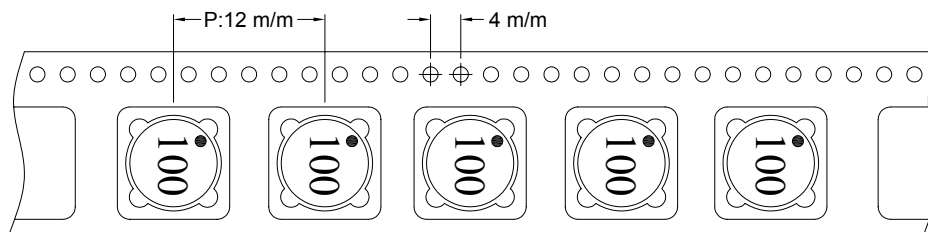


### 8. PACKAGING INFORMATION :

#### ( 1 ) CONFIGURATION



\* CARRIER TAPE WIDTH : D



#### ( 2 ) DIMENSIONS

Unit:m/m

STYLE	A	B	C	D	G	N	T
13-16	330	21±0.8	13	16	18 <sup>+0</sup>	50 <sup>-0</sup>	22.4

#### ( 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)
SPB0704	1000	717	13-16	6000	7.9	38 x 36.5 x 21



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### 9. RELIABILITY AND TEST CONDITION :

TEST ITEM	SPECIFICATION	TEST CONDITION
SOLDERABILITY	MORE THAN 90% OF THE TERMINAL ELECTRODE SHALL BE COVERED WITH FRESH SOLDER.	PREHEAT : 125±25°C FOR 60 SECONDS SOLDER : 99%Sn/0.3%Ag/0.7%Cu OR EQUIVALENT SOLDER TEMP. : 245±5°C FLUX : ROSIN DIP TIME : 4±1 SECONDS
THERMAL SHOCK TEST  ( TEMP. CYCLE )	INDUCTANCE SHALL NOT CHANGE MORE THAN ±20%	ROOM TEMP. → -25±2°C 15 MINUTES → 30 MINUTES  ROOM TEMP. → 85±2°C 15 MINUTES → 30 MINUTES  TOTAL : 50 CYCLES
HUMIDITY RESISTANCE TEST		TEMPERATURE : 40±2°C HUMIDITY : 90 ~ 95% APPLIED CURRENT : PER SPEC. TIME : 500 HOURS
HIGH TEMP. RESISTANCE TEST		TEMPERATURE : 85±2°C APPLIED CURRENT : PER SPEC. TIME : 500 HOURS

### 10. UL CARD :

<b>OBMW2</b>		<b>November 30, 2000</b>	
<b>Magnet Wire - Component</b>			
<b>PACIFIC ELECTRIC WIRE &amp; CABLE (SHENZHEN) CO LTD</b>			<b>E201757</b>
607 BAOLONG INDUSTRIAL ESTATE LONGGANG, SHENZHEN GUANGDONG CHINA			
	Coating Type	ANSI Type	TI
Mtl Dsg	BC	TC	—
UEW/U	Polyurethane	—	130
PEW/U	Polyester	—	155°C
PEWH/U	Modified Polyester	—	180
PEW-NY/U	Polyester	Polyamide	155
HAI/U	Polyester(Amide)(Imide)	Polyamideimide	200
UEW-NY/U	Polyurethane	Polyamide	155
		MW80-C	130
		MW28-C	130

Marking: Company name and material designation or marked designation on package or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions

1/3/2001                      Underwriters Laboratories Inc.                      Card 1 of 2



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## 10. UL CARD :

SUMITOMO CHEMICAL CO LTD										E54705 (M)		
5-33 KITAHAMA 4-CHOME CHUO-KO, OSAKA JAPAN												
Mtl Dsg	Col	Min Thk mm	UL94 Flame Class	Elec	RTI		H W I	H A I	H V T R	D 4 5	C 9 T I	
					with Imp	Mech w/o Imp						
Liquid crystal polyester (LCP), designated "EKONOL" or "SUMIKASUPER", furnished in the form of pellets, (Contd)												
E4008 , E400X	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—	
		0.75	94V-0	130	130	130	3	4	—	—	—	
		1.5	94V-0	130	130	130	2	4	—	—	—	
		3.0	94V-0	130	130	130	1	4	0	5	4	
E4008	NC , WT , BK	0.30	94V-0	130	130	130	—	—	—	—	—	
		0.75	94V-0	220	180	220	3	4	—	—	—	
		1.5	94V-0	220	200	240	2	4	—	—	—	
		3.0	94V-0	220	200	240	1	4	0	5	4	
E4010	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—	
		0.75	94V-0	220	180	220	3	4	—	—	—	
		1.5	94V-0	220	200	240	2	4	—	—	—	
		3.0	94V-0	220	200	240	1	4	0	5	4	
E400(Y)L , E4008L	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—	
		0.75	94V-0	130	130	130	3	4	—	—	—	
		1.5	94V-0	130	130	130	2	4	—	—	—	
		3.0	94V-0	130	130	130	1	4	0	5	4	
E4810	NC , BK	0.30	94V-0	130	130	130	—	—	—	—	—	
		0.75	94V-0	130	130	130	0	4	—	—	—	
		1.5	94V-0	130	130	130	0	4	—	—	—	
		3.0	94V-0	130	130	130	1	4	0	5	4	

(X) Denotes any number 1 thru 9.  
(Y) Denotes any number 1 thru 7.

TERAOKA SEISAKUSHO CO LTD										E56086 (S)		
4-22 1-CHOME HIROMACHI SHINAGAWA-KU, TOKYO JAPAN												
Flame retardant aramid paper tape, Cat. Nos. 512F+, 560F+, 565S+, 681S+.												
Flame retardant aramid paper tape, Cat. Nos. 560S+, 561S+, 562S+, rated 200 C.												
Flame retardant acetate cloth tape, Cat. Nos. 570F+, 571F+, 573F+.												
Flame retardant polyester film tape, Cat. Nos. 680F+, 684F+.												
Flame retardant glass cloth tape, Cat. Nos. 510F+, 540S+, 541F+, 685S+.												
Flame retardant glass cloth tape, Cat. No. 54S, rated 200 C.												
Flame retardant cotton cloth tape, Cat. Nos. 590F+, 715F+.												
Flame retardant polyimide film tape, Cat. No. 650S+, rated 200 C.												
Flame retardant tellon tape, Cat. Nos. 841+, 846+.												
Flame retardant PVC tape, Cat. Nos. 305F+, 307F+, 380F+.												
Flame retardant polyester fiber tape, Cat. Nos. 511F+, 551F+.												
Flame retardant epoxy varnish impregnated polyester web tape, Cat. Nos. 530F+.												
Flame retardant epoxy varnish impregnated glass paper tape, Cat. No. 531F+.												
Flame retardant copper foil tape, Cat. No. 831S+.												
Flame retardant copper foil tape, Cat. No. 8321+.												
Flame retardant aluminum foil tape, Cat. Nos. 833+, 834+.												
Epoxy varnish impregnated polyester non-woven fabric tape, cat. no. 530F° rated 150 C.												
polyester film tape, Cat. Nos. 631S°, 632S, rated 130 C.												
Flame retardant polyester film tape, Cat. No. 630F°, rated 130 C.												
Flame retardant polyester film/epoxy varnish impregnated polyester fiber tape Cat. No. 673F°, rated 130 C.												
Flame retardant polyester film/epoxy varnish impregnated polyester fiber/polyester film tape, Cat. No. 850F°, rated 130 C.												
+ - Subjected to Flame Retardant tests only.												
° - Complies with Flame Retardent requirements when so marked.												
Mraking: Company name or "E56086" and catalog designation and "Flame Retardent" if applyce, bic. printed on the central paper or outer package.												



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17.12.2010

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