

1. PART NO. EXPRESSION :

SPB0703100MZ F-□□
 (a) (b) (c) (d)(e)(f) (g)

(a) Series code

(b) Dimension code

(c) Inductance code : 100 = 10uH

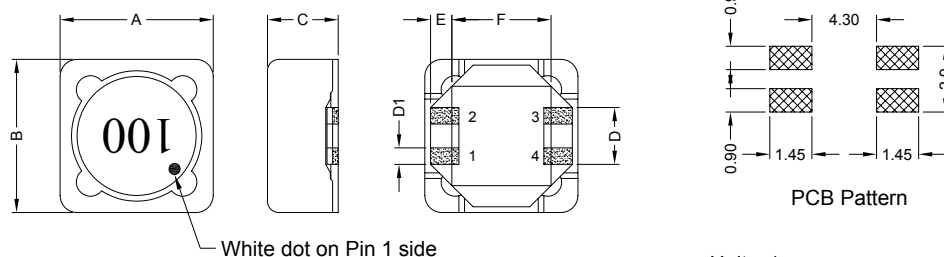
(d) Tolerance code : M = $\pm 20\%$, Y = $\pm 30\%$

(e) Z : Standard part

(f) F : RoHS Compliant

(g) 11 ~ 99 : Internal controlled number

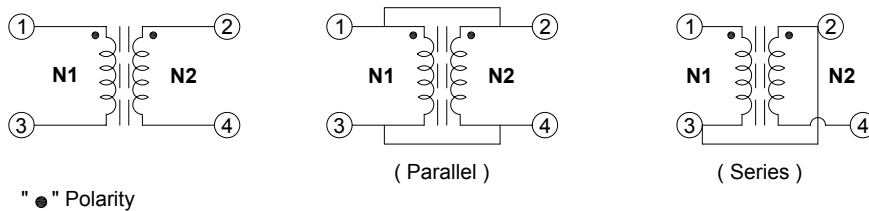
2. CONFIGURATION & DIMENSIONS :



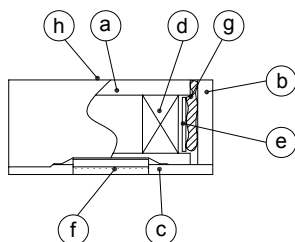
Unit:m/m

A	B	C	D	D1	E	F
7.30 $\pm$ 0.20	7.30 $\pm$ 0.20	3.50 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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20.07.2011



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PG. 1

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 (μH) Ref.	Test Frequency (Hz)	Parallel				Series			
			Inductance (μH) Ref.	RDC (Ω) Max.	Isat (A)	Irms (A)	Inductance (μH) Ref.	RDC (Ω) Max.	Isat (A)	Irms (A)
SPB07031R0YZF-□□	1.00	0.25V/100K	0.992	0.0104	7.97	5.25	3.968	0.0430	3.99	2.630
SPB07031R5YZF-□□	1.50	0.25V/100K	1.482	0.0130	6.52	4.64	5.928	0.0494	3.26	2.320
SPB07032R2YZF-□□	2.20	0.25V/100K	2.070	0.0210	5.52	4.11	8.280	0.0676	2.76	2.060
SPB07033R3YZF-□□	3.30	0.25V/100K	3.540	0.0283	4.22	3.31	14.16	0.1148	2.11	1.660
SPB07034R7YZF-□□	4.70	0.25V/100K	4.422	0.0366	3.78	3.09	17.69	0.1561	1.89	1.550
SPB07036R8YZF-□□	6.80	0.25V/100K	6.480	0.0558	3.12	2.55	25.92	0.2292	1.56	1.280
SPB07038R2YZF-□□	8.20	0.25V/100K	8.930	0.0591	2.66	2.19	35.72	0.2390	1.33	1.100
SPB0703100MZF-□□	10.0	0.25V/100K	10.30	0.0800	2.47	2.08	41.20	0.3276	1.24	1.040
SPB0703150MZF-□□	15.0	0.25V/100K	15.01	0.1099	2.05	1.83	60.04	0.4380	1.03	0.916
SPB0703220MZF-□□	22.0	0.25V/100K	22.65	0.1620	1.67	1.62	90.60	0.6528	0.83	0.811
SPB0703330MZF-□□	33.0	0.25V/100K	34.41	0.2300	1.35	1.31	137.6	0.9180	0.68	0.653
SPB0703470MZF-□□	47.0	0.25V/100K	48.62	0.3156	1.14	1.03	194.5	1.2552	0.57	0.500
SPB0703680MZF-□□	68.0	0.25V/100K	69.91	0.4404	0.96	0.89	275.6	1.7532	0.48	0.444
SPB0703820MZF-□□	82.0	0.25V/100K	80.37	0.5772	0.89	0.71	321.5	2.3418	0.44	0.351
SPB0703101MZF-□□	100	0.25V/100K	101.4	0.8352	0.79	0.63	405.6	3.3912	0.39	0.312
SPB0703151MZF-□□	150	0.25V/100K	150.9	1.5360	0.65	0.50	603.6	6.0516	0.32	0.245
SPB0703221MZF-□□	220	0.25V/100K	223.3	1.6608	0.53	0.47	893.2	6.7212	0.27	0.232
SPB0703331MZF-□□	330	0.25V/100K	325.5	2.6952	0.44	0.37	1302	10.670	0.22	0.185
SPB0703471MZF-□□	470	0.25V/100K	465.8	3.3504	0.37	0.34	1863	13.704	0.18	0.168
SPB0703681MZF-□□	680	0.25V/100K	676.5	5.3967	0.31	0.25	2706	21.297	0.15	0.123
SPB0703821MZF-□□	820	0.25V/100K	821.7	6.0912	0.28	0.23	3287	24.312	0.14	0.112
SPB0703102MZF-□□	1000	0.25V/100K	995.0	9.3492	0.25	0.19	3980	37.008	0.13	0.093

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



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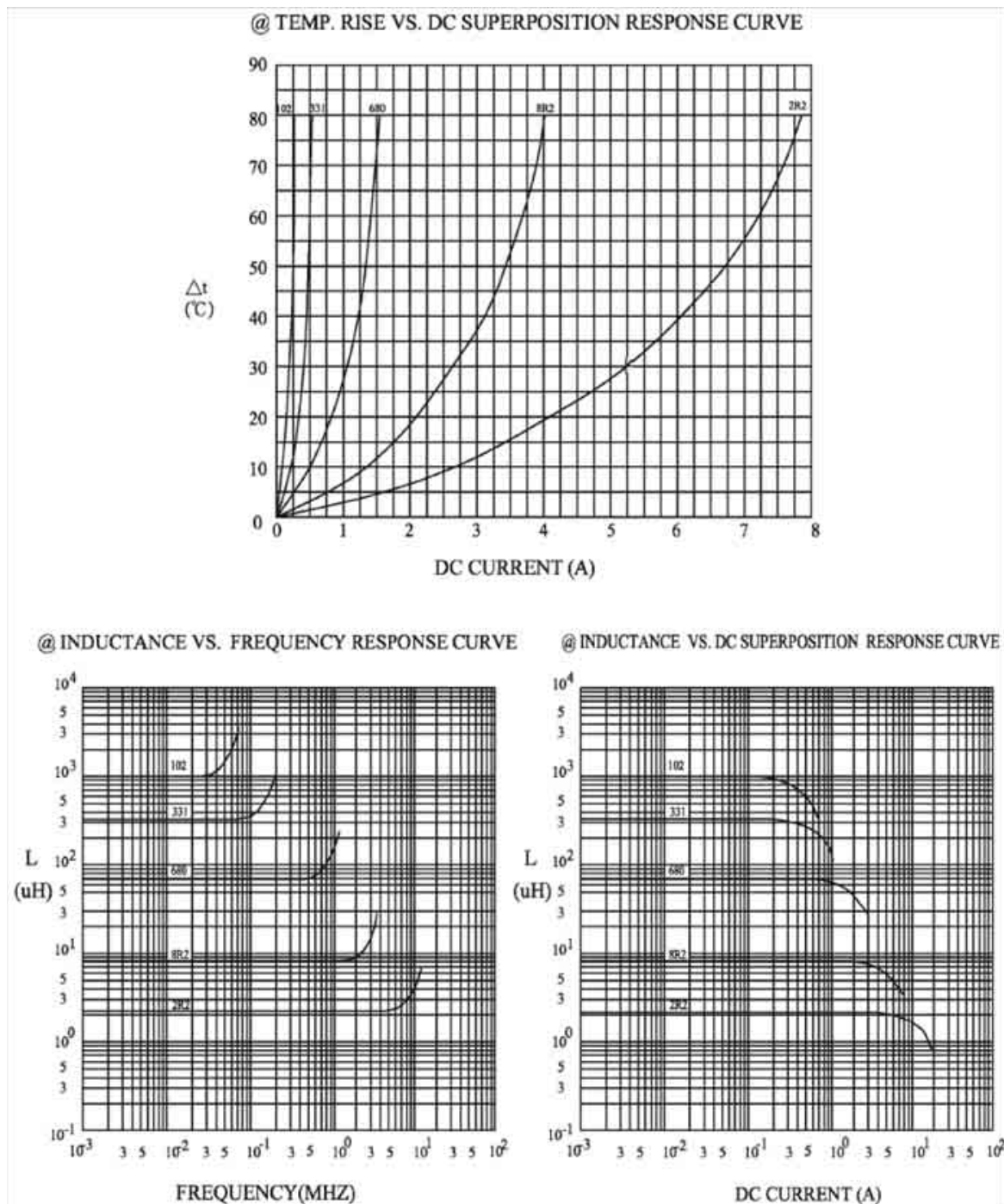
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7. CHARACTERISTICS CURVES : (PARALLEL)



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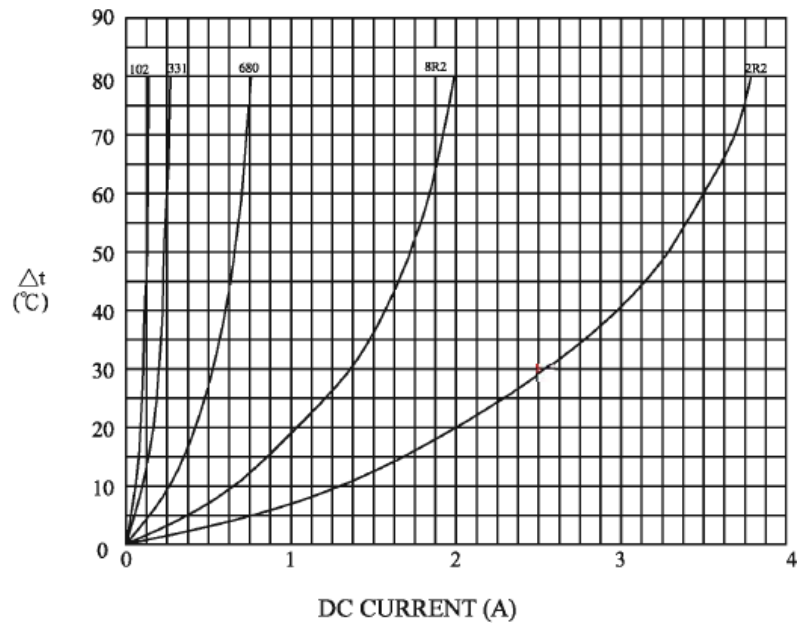
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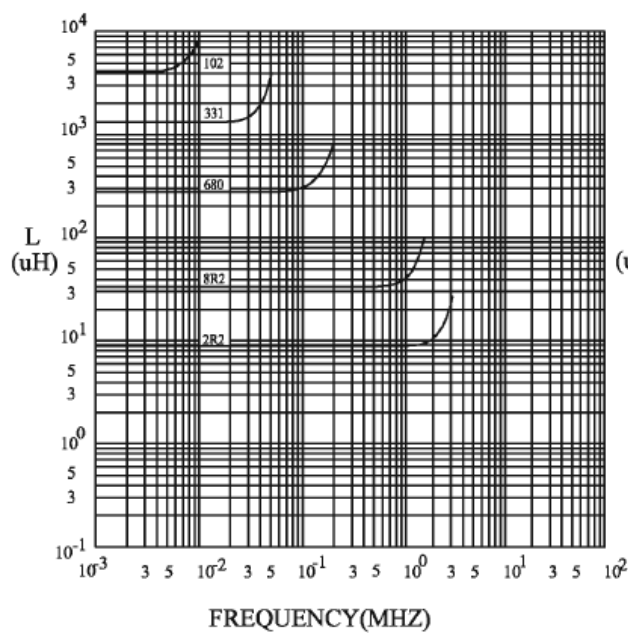
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7. CHARACTERISTICS CURVES : (SERIES)

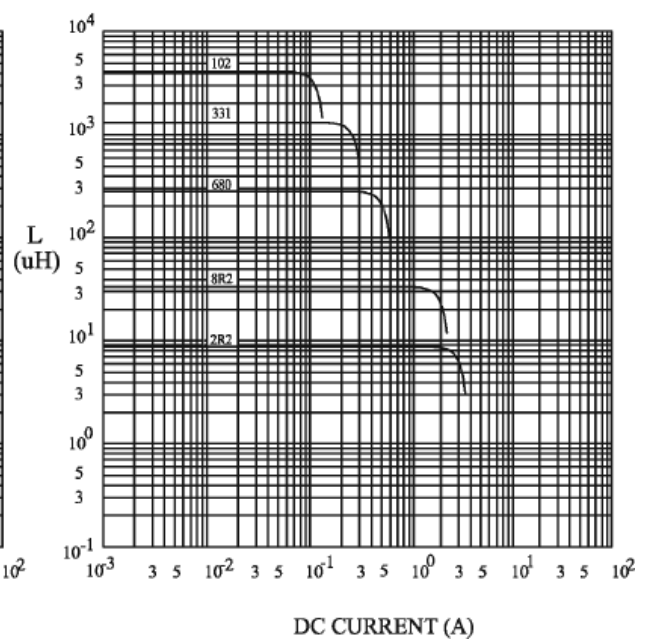
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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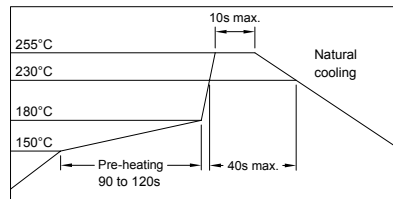
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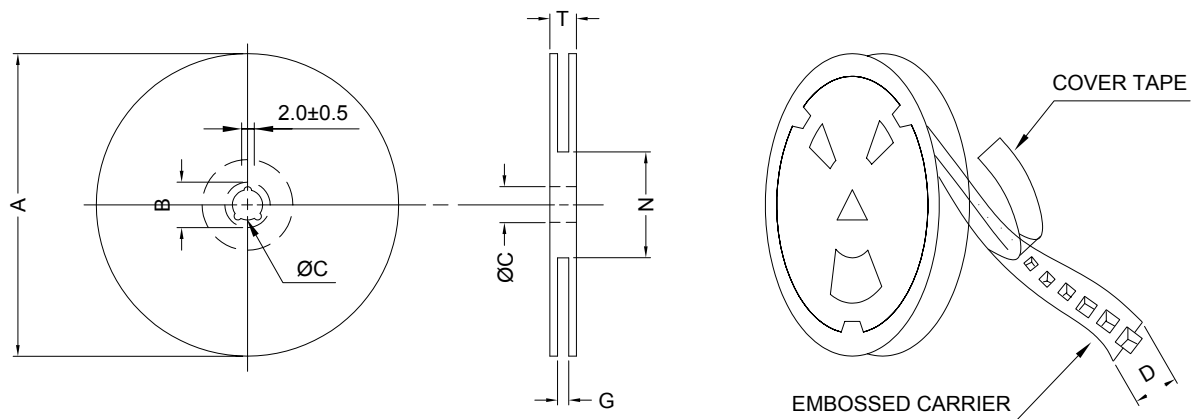
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RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

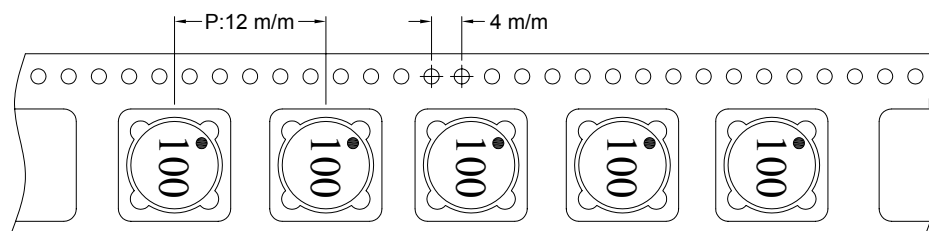


8. PACKAGING INFORMATION :

(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 ⁺⁰	50 ⁻⁰	22.4

(3) Q'TY & G.W. PER PACKAGE

SERIES	INNER : REEL			OUTER : CARTON		
	Q'TY (PCS)	G.W. (Kg)	STYLE	Q'TY (PCS)	G.W. (Kg)	SIZE (cm)
SPB0703	1350	1.115	13-16	8100	8.40	38 x 36.5 x 21



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20.07.2011



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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. 15 MINUTES → -25±2°C 30 MINUTES ROOM TEMP. 15 MINUTES → 85±2°C 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 :

OBMW2		November 30, 2000	
Magnet Wire - Component			
PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD		E201757	
607 BAOLONG INDUSTRIAL ESTATE LONGGANG, SHENZHEN			
GUANGDONG CHINA			
Mtl Dsg	BC	Coating Type	ANSI Type
UEW/U	Polyurethane	TC	TI
PEW/U	Polyester	—	130
PEWH/U	Modified Polyester	—	155°C
PEW-NY/U	Polyester	Polyamide	MW5-C 180
HAI/U	Polyester(Amide)(Imide)	Polyamideimide	MW30-C 180
UEW-NY/U	Polyurethane	Polyamide	MW24-C 155
			MW35,73 200
			MW80-C 155
			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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SUPERWORLD ELECTRONICS (S) PTE LTD

20.07.2011

10. UL CARD :

SUMITOMO CHEMICAL CO LTD 5-33 KITAHAMA 4-CHOME CHUO-KO, OSAKA JAPAN										E54705 (M)		
Mtl Dsg	Col	Min Thk mm	UL94 Flame Class	Elec	RTI Mech with Imp	w/o Imp	H W I	H A I	H V T R	D 4 9 5	C T I	
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	—	—	—	—
E4008	NC, WT, BK	3.0	94V-0	130	130	130	1	4	0	5	4	—
		0.30	94V-0	130	130	130	—	—	—	—	—	—
		0.75	94V-0	220	180	220	3	4	—	—	—	—
E4010	NC, BK	1.5	94V-0	220	200	240	2	4	—	—	—	—
		3.0	94V-0	220	200	240	1	4	0	5	4	—
		0.30	94V-0	130	130	130	—	—	—	—	—	—
E4010	NC, BK	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	—	—	—	—
E4810	NC, BK	3.0	94V-0	130	130	130	1	4	0	5	4	—
		0.30	94V-0	130	130	130	—	—	—	—	—	—
		0.75	94V-0	130	130	130	0	4	—	—	—	—
E4810	NC, BK	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

4-22 1-CHOME HIROMACHI SHINAGAWA-KU, TOKYO

JAPAN

E56086 (S)

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 Retardant requirements when so marked.

Making: Company name or "E56086" and catalog designation and "Flame Retardant" if applyce, bic. printed on the central paper or outer package.



RoHS Compliant

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PG. 7