

1. PART NO. EXPRESSION :

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

(a) Series code

(b) Dimension code

(c) Inductance code : 100 = 10uH

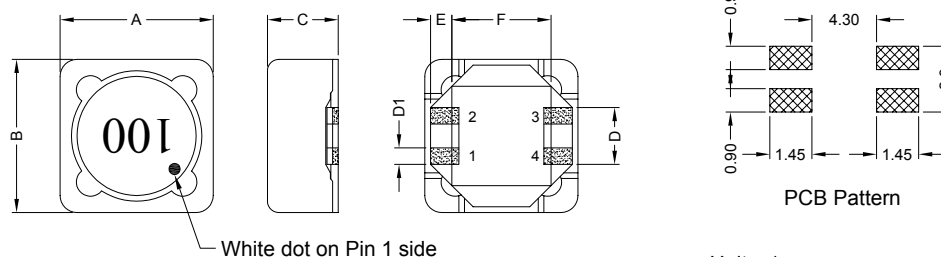
(d) Tolerance code : M = $\pm 20\%$, Y = $\pm 30\%$

(e) Z : Standard part

(f) F : RoHS Compliant

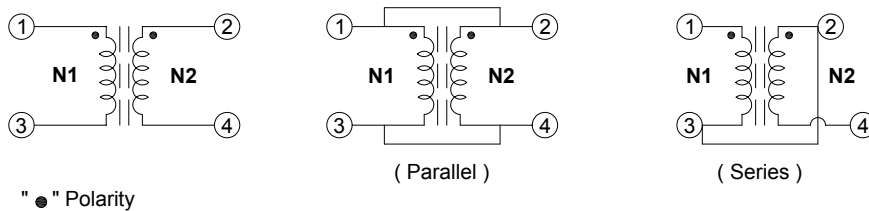
(g) 11 ~ 99 : Internal controlled number

2. CONFIGURATION & DIMENSIONS :

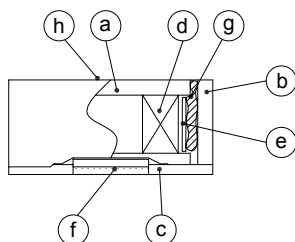


A	B	C	D	D1	E	F
7.30 $\pm$ 0.20	7.60 $\pm$ 0.20	4.45 Max.	2.70 Ref.	0.70 Ref.	1.25 Ref.	4.50 Ref.

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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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)
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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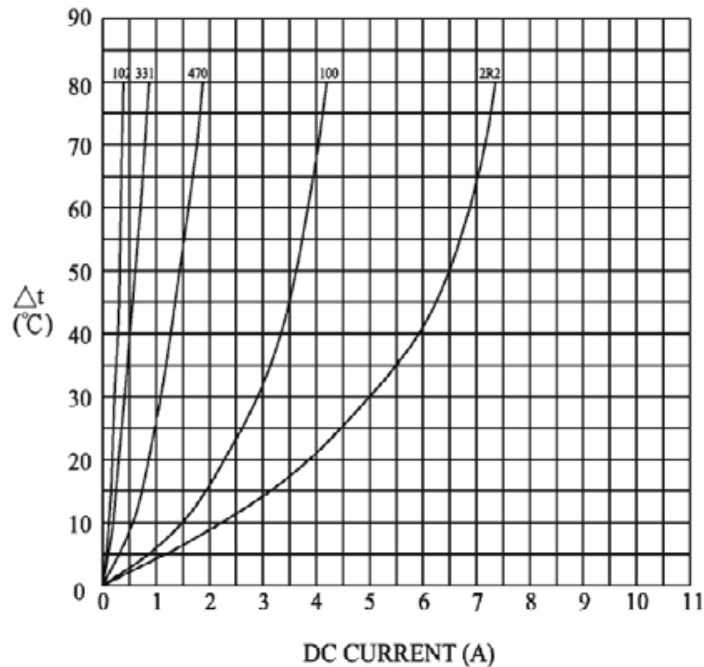
17.12.2010



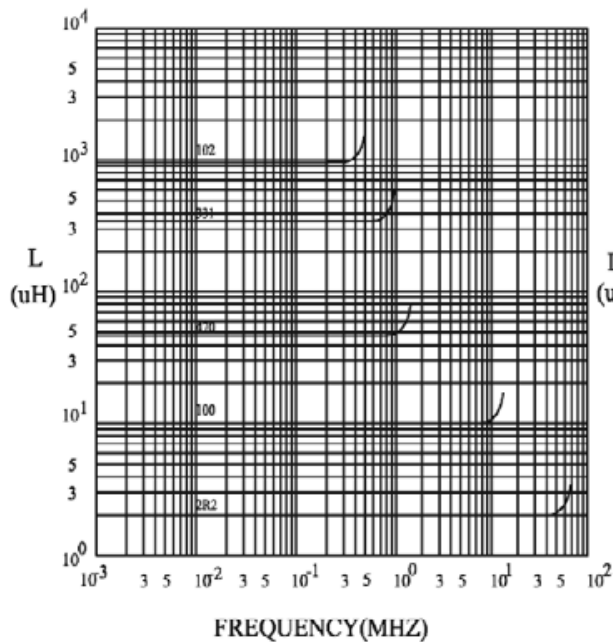
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7. CHARACTERISTICS CURVES : (PARALLEL)

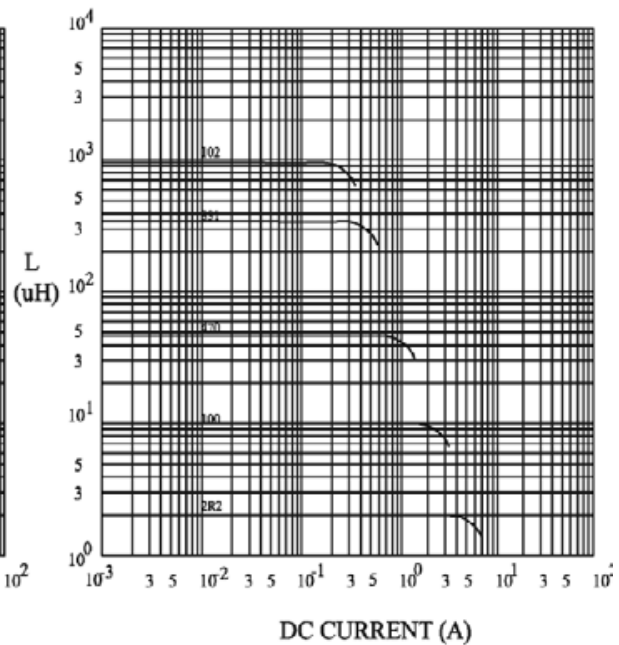
@ TEMP. RISE VS. DC SUPERPOSITION RESPONSE CURVE



@ INDUCTANCE VS. FREQUENCY RESPONSE CURVE



@ INDUCTANCE VS. DC SUPERPOSITION RESPONSE CURVE



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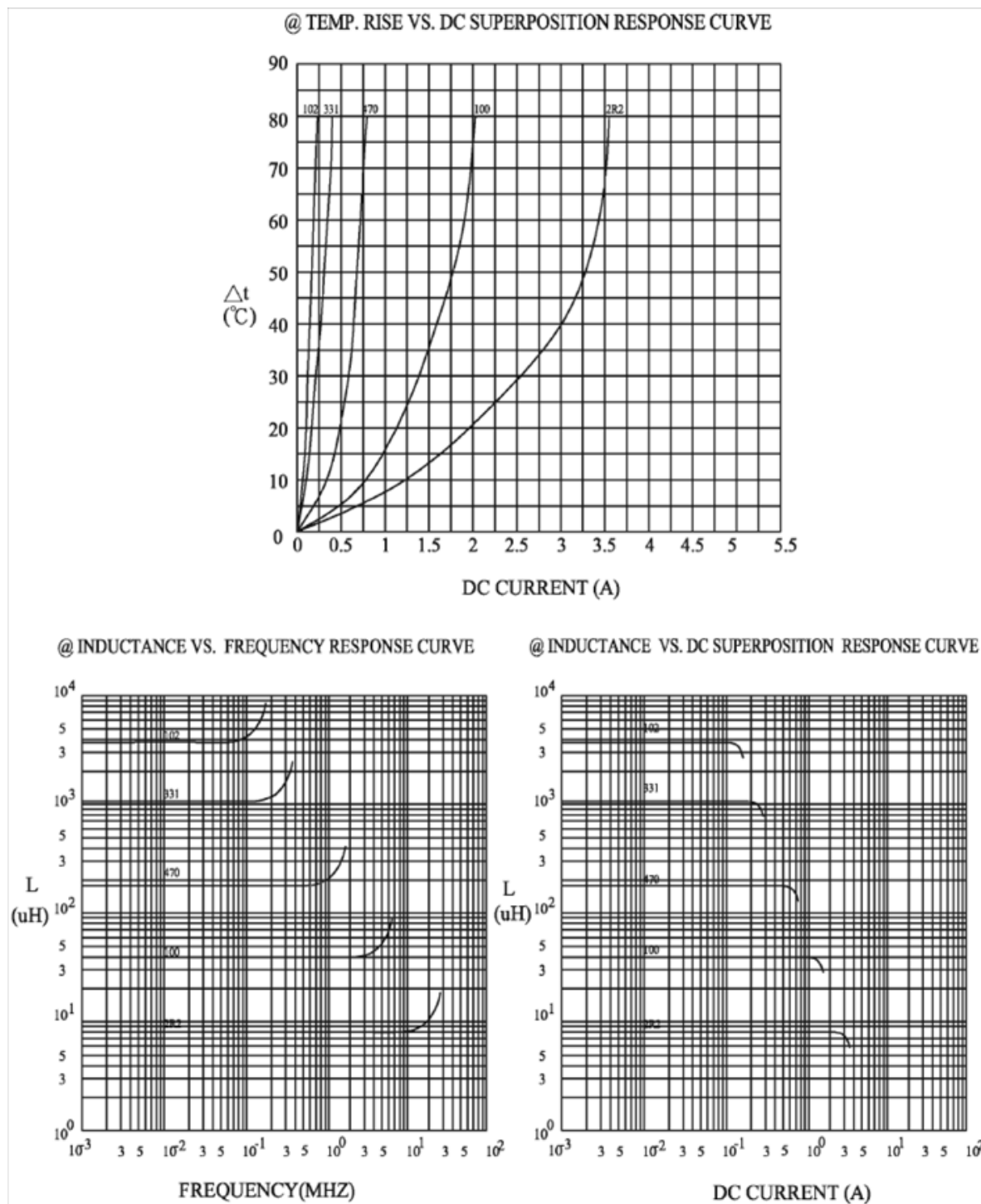
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7. CHARACTERISTICS CURVES : (SERIES)



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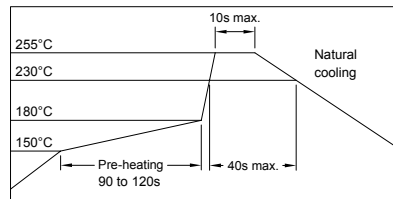
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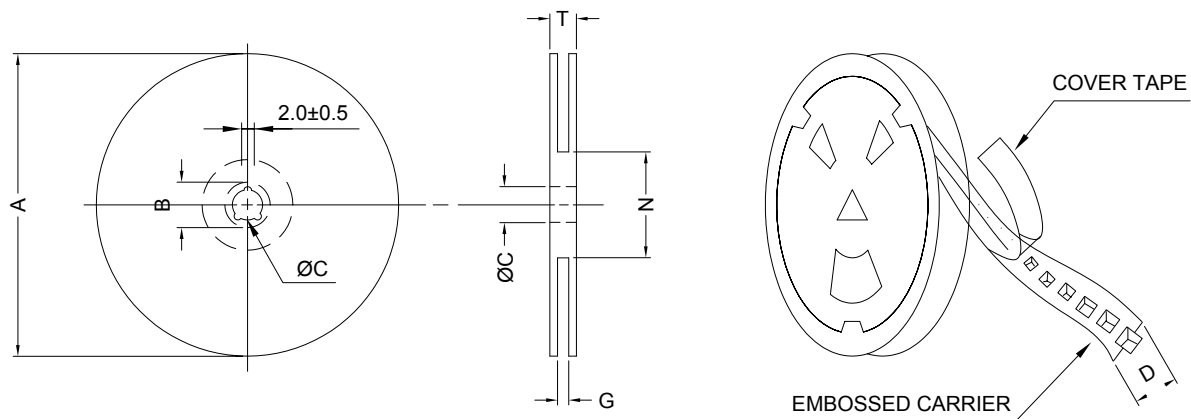
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RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERINGS

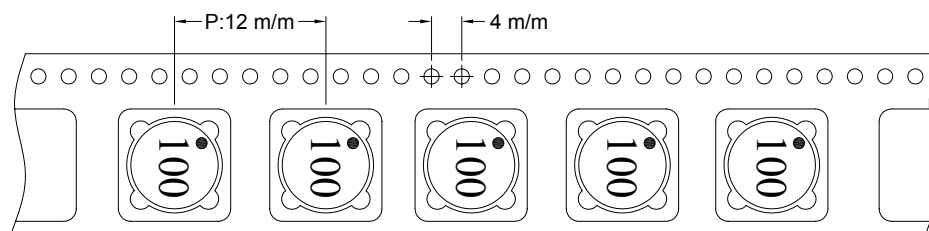


8. PACKAGING INFORMATION :

(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. (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 :

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	TI
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
			MW28-C	130
			MW80-C	155
			MW35,73	200
			MW24-C	155
			MW30-C	180
			MW5-C	155°C

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 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	—	—	—	—
		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

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. 34S, 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.

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



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