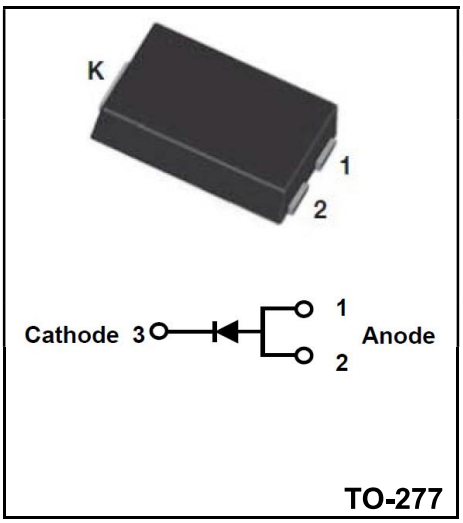
Surface Mount Transient Voltage Suppressors

Reverse Voltage: 6.8V ~ 250 V

1500 Watt Peak Pulse Power



FEATURES

- Optimzed for LAN protection applications
- Ideal for ESD protection of data lines in accordance with IEC 1000-4-2(IEC801-2)
- Ideal for EFT protection of data lines in accordance with IEC 1000-4-4(IEC801-2)
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 1500w peak pulse power capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time:typically less than 1.0ps from 0v to V_{BR} min
- High temperature soldering guaranteed: 260°C/10S at terminals

MECHANICAL DATA

- Case : TO-277
- Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position : Any
- Weight : 0.003 ounce, 0.092 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Paramete	Symbol	Value	Units
Peak pulse power dissipation with a 10/1000μs wavetorm(NOTE 1,2,FIG.1)	P_{PPM}	1500	W
Peak forward surge current (Note 1,2,3)	I_{FSM}	100	A
Peak pulse current with a 10/1000μs waveform(NOTE1)	I_{PPM}	See Table 1	A
Steady state power dissapation (Note3)	P_{Pk}	1500	W
Maximum instantaneous forward voltage at 50A unidirectional only	V_F	3.5	V
Operating junction and storage temperature range	T_J,T_{STG}	-55 to + 150	°C

Notes:1.Non-repetitive current pulse,per Fig.3 and derated above T_A=25°C per Fig.2

2. Mounted on 5.0mm copper pads to each terminal

3. Measured on 8.3ms single half sine-wine.For uni-directional devices only.

Type	Marking	Peak Pulse Power	Stand-off Voltage	Maximum Reverse Current at V_R	Breakdown Voltage at IT		Test Current	Maximum Peak Pulse Current	Maximum Clamping Voltage at Ipp
Uni-Polar	Uni-Polar	PPP	V(R)	IR	$V_{(BR)}$ (V)		IT	Ipp	Vc
		(W)	(V)	(uA)	Min.	Max.	(mA)	(A)	(V)
TPC6.8A	6V8A	1500	5.8	1000	6.45	7.14	10	144.8	10.5
TPC7.5A	7V5A	1500	6.4	500	7.13	7.88	10	134.5	11.3
TPC8.2A	8V2A	1500	7.02	200	7.79	8.61	10	125.6	12.1
TPC 9.1A	9V1A	1500	7.78	50	8.65	9.5	1	113.4	13.4
TPC10A	10A	1500	8.55	10	9.5	10.5	1	104.8	14.5
TPC11A	11A	1500	9.4	5	10.5	11.6	1	97.4	15.6
TPC 12A	12A	1500	10.2	5	11.4	12.6	1	91.0	16.7
TPC13A	13A	1500	11.1	1	12.4	13.7	1	83.5	18.2
TPC15A	15A	1500	12.8	1	14.3	15.8	1	71.7	21.2
TPC16A	16A	1500	13.6	1	15.2	16.8	1	67.6	22.5
TPC18A	18A	1500	15.3	1	17.1	18.9	1	60.3	25.2
TPC 20A	20A	1500	17.1	1	19	21	1	54.9	27.7
TPC22A	22A	1500	18.8	1	20.9	23.1	1	49.7	30.6
TPC 24A	24A	1500	20.5	1	22.8	25.2	1	45.8	33.2
TPC 27A	27A	1500	23.1	1	25.7	28.4	1	40.5	37.5
TPC 30A	30A	1500	25.6	1	28.5	31.5	1	36.7	41.4
TPC 33A	33A	1500	28.2	1	31.4	34.7	1	33.3	45.7
TPC 36A	36A	1500	30.8	1	34.2	37.8	1	30.5	49.9
TPC39A	39A	1500	33.3	1	37.1	41	1	28.2	53.9
TPC43A	43A	1500	36.8	1	40.9	45.2	1	25.6	59.3
TPC47A	47A	1500	40.2	1	44.7	49.4	1	23.5	64.8
TPC51A	51A	1500	43.6	1	48.5	53.6	1	21.7	70.1
TPC56A	56A	1500	47.8	1	53.2	58.8	1	19.7	77
TPC62A	62A	1500	53	1	58.9	65.1	1	17.9	85
TPC 68A	68A	1500	58.1	1	64.6	71.4	1	16.5	92
TPC 75A	75A	1500	64.1	1	71.3	78.8	1	14.8	103
TPC 82A	82A	1500	70.1	1	77.9	86.1	1	13.5	113
TPC 91A	91A	1500	77.8	1	86.5	95.5	1	12.2	125
TPC100A	100A	1500	85.5	1	95	105	1	11.1	137
TPC110A	110A	1500	94	1	105	116	1	10.0	152
TPC120A	120A	1500	102	1	114	126	1	9.2	165
TPC130A	130A	1500	111	1	124	137	1	8.5	179
TPC150A	150A	1500	128	1	143	158	1	7.3	207
TPC160A	160A	1500	136	1	152	168	1	6.9	219
TPC170A	170A	1500	145	1	162	179	1	6.5	234
TPC180A	180A	1500	154	1	171	189	1	6.2	246
TPC 200A	200A	1500	171	1	190	210	1	5.5	274
TPC 220A	220A	1500	185	1	209	231	1	4.6	328
TPC 250A	250A	1500	214	1	237	263	1	4.4	344

Ratings And Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

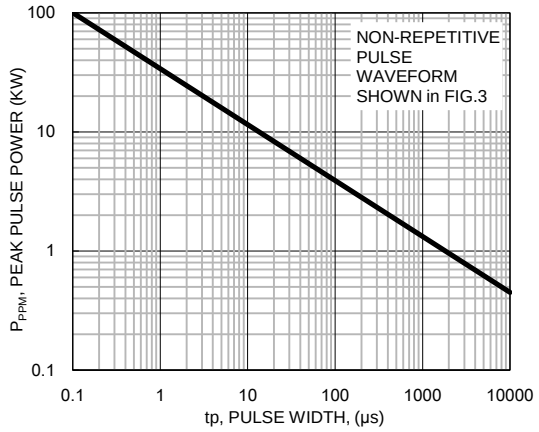


Fig.2 Pulse Derating Curve

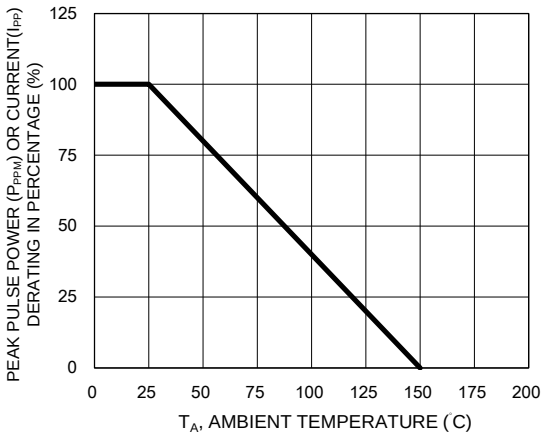


Fig.3 Clamping Power Pulse Waveform

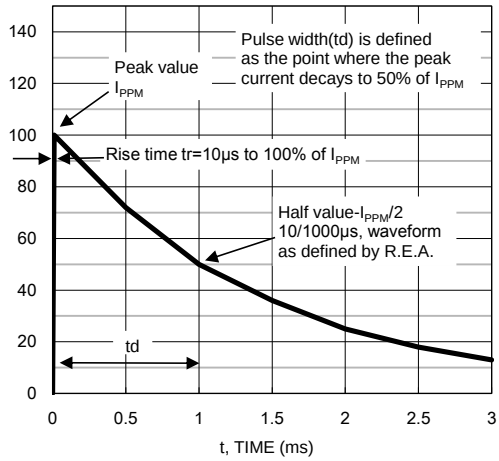


Fig.4 Typical Junction Capacitance

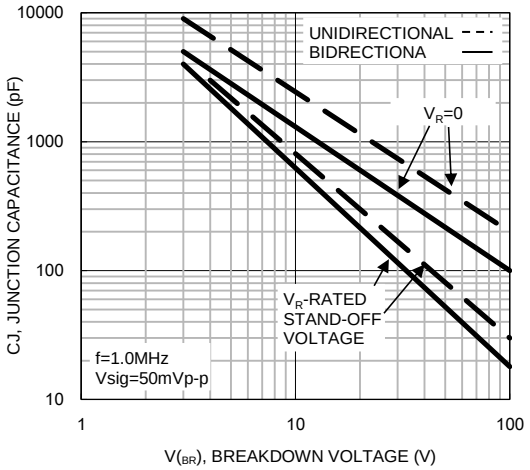
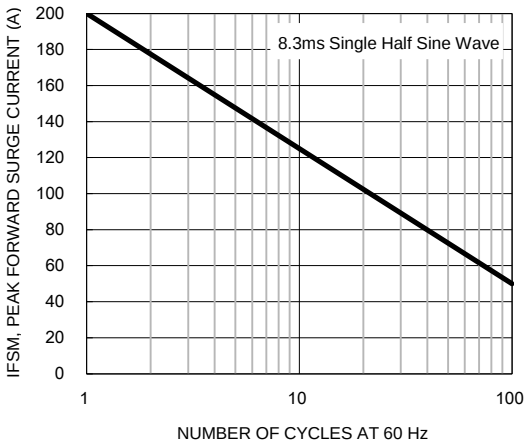
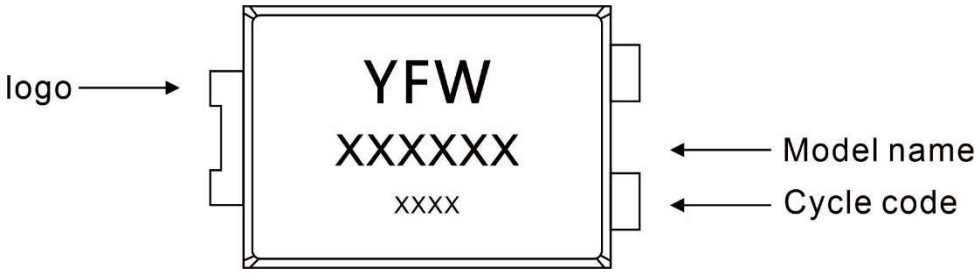


Fig.5 Maximum Non-repetitive Forward Surge Current Unidirectional Only



Marking Diagram

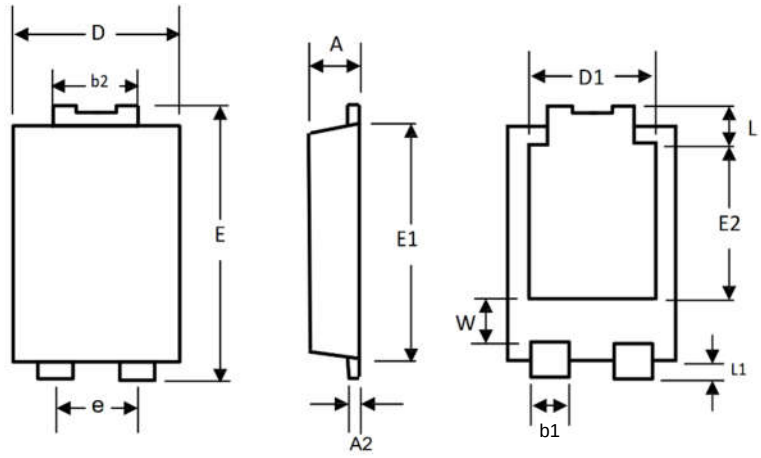


Ordering information

Package	Packing Description	Packing Quantity
TO-277	Tape/Reel,13"reel	5000PCS/Reel 50000PCS/Carton

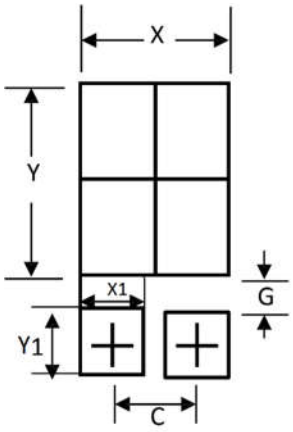
Package Dimensions

TO-277



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.1	1.2	43	47
A2	0.3	0.4	12	16
b1	0.8	1	32	39
b2	1.7	1.9	67	75
D	3.9	4.1	154	162
D1	3.054		120	
E	6.4	6.6	252	260
e	1.84		73	
E1	5.3	5.5	209	217
E2	3.549		140	
L	0.8	1	32	39
L1	0.5	0.7	20	28
W	1.1	1.4	43	55

The recommended mounting pad size



Dim	Min
C	1.8
G	0.9
X	3.4
X1	1.4
Y	4.9
Y1	1.4

unit:mm

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