

1.5KE6.8(C)A~1.5KE440(C)A

1500W Transient Voltage Suppressors

DO-27

Features

- Optimized for LAN protection applications
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 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

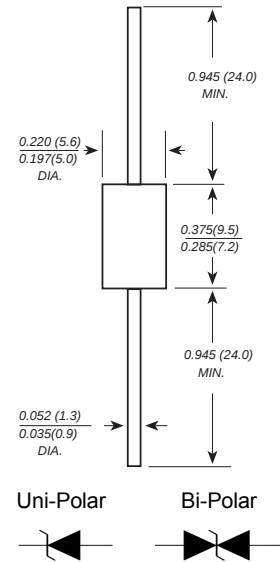
Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	SYMBOLS	VALUE	UNITS
Peak power dissipation (Note 1)	P _{ppm}	Minimum 1500	Watts
Peak pulse reverse current (Note 1, Fig.1)	I _{ppm}	See Table 1	Amps
Steady state power dissipation (Note 2)	P _{M(AV)}	5.0	Watts
Peak forward surge current (Note 3)	I _{FSM}	200	Amps
Maximum instantaneous forward voltage at 50A for unidirectional only (Note 4)	V _F	3.5/5.0	Volts
Operating junction and storage temperature range	T _{STG} , T _J	-55 to + 150	°C

Notes:

- 1.10/1000μs waveform non-repetitive current pulse, per Fig.3 and derated above T_a=25°C per Fig.2
- 2.T_L=75°C, lead lengths 9.5mm, Mounted on copper pad area of (20x20mm) Fig.5
- 3.Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
- 4.V_F=3.5V max. for devices of V_{BR}≤100V, and V_F=5.0V max. for devices of V_{BR}>100V

Type		Peak Pulse Power	Stand-off Voltage	Maximum Reverse Current at VR	Breakdown Voltage at IT		Test Current	Maximum Peak Pulse Current	Maximum Clamping Voltage at Ipp
Uni-Polar	Bi-Polar	PPP	V(R)	IR	V (BR) (V)		IT	Ipp	Vc
		(W)	(V)	(uA)	Min.	Max.	(mA)	(A)	(V)
1.5KE6.8A	1.5KE6.8CA	1500	5.8	1000	6.45	7.14	10	143	10.5
1.5KE7.5A	1.5KE7.5CA	1500	6.4	500	7.13	7.88	1	133	11.3
1.5KE8.2A	1.5KE8.2CA	1500	7.0	200	7.79	8.61	1	124	12.1
1.5KE9.1A	1.5KE9.1CA	1500	7.8	50	8.65	9.55	1	112	13.4
1.5KE10A	1.5KE10CA	1500	8.6	10	9.5	10.5	1	103	14.5
1.5KE11A	1.5KE11CA	1500	9.4	5	10.5	11.6	1	96.2	15.6
1.5KE12A	1.5KE12CA	1500	10.2	5	11.4	12.6	1	89.8	16.7
1.5KE13A	1.5KE13CA	1500	11.1	5	12.4	13.7	1	82.4	18.2
1.5KE15A	1.5KE15CA	1500	12.8	5	14.3	15.8	1	70.8	21.2
1.5KE16A	1.5KE16CA	1500	13.6	5	15.2	16.8	1	66.7	22.5
1.5KE18A	1.5KE18CA	1500	15.3	5	17.1	18.9	1	59.5	25.2
1.5KE20A	1.5KE20CA	1500	17.1	5	19	21	1	54.2	27.7
1.5KE22A	1.5KE22CA	1500	18.8	5	20.9	23.1	1	49	30.6
1.5KE24A	1.5KE24CA	1500	20.5	5	22.8	25.2	1	45.2	33.2
1.5KE27A	1.5KE27CA	1500	23.1	5	25.7	28.4	1	40	37.5
1.5KE30A	1.5KE30CA	1500	25.6	5	28.5	31.5	1	36.2	41.4
1.5KE33A	1.5KE33CA	1500	28.2	5	31.4	34.7	1	32.8	45.7
1.5KE36A	1.5KE36CA	1500	30.8	5	34.2	37.8	1	30.1	49.9
1.5KE39A	1.5KE39CA	1500	33.3	5	37.1	41	1	27.8	53.9
1.5KE43A	1.5KE43CA	1500	36.8	5	40.9	45.2	1	25.3	59.3
1.5KE47A	1.5KE47CA	1500	40.2	5	44.7	49.4	1	23.1	64.8
1.5KE51A	1.5KE51CA	1500	43.6	5	48.5	53.6	1	21.4	70.1
1.5KE56A	1.5KE56CA	1500	47.8	5	53.2	58.8	1	19.5	77
1.5KE62A	1.5KE62CA	1500	53	5	58.9	65.1	1	17.6	85
1.5KE68A	1.5KE68CA	1500	58.1	5	64.6	71.4	1	16.3	92
1.5KE75A	1.5KE75CA	1500	64.1	5	71.3	78.8	1	14.6	103
1.5KE82A	1.5KE82CA	1500	70.1	5	77.9	86.1	1	13.3	113
1.5KE91A	1.5KE91CA	1500	77.8	5	86.5	95.5	1	12.0	125
1.5KE100A	1.5KE100CA	1500	85.5	5	95	105	1	10.9	137
1.5KE110A	1.5KE110CA	1500	94	5	105	116	1	9.9	152
1.5KE120A	1.5KE120CA	1500	102	5	114	126	1	9.1	165
1.5KE130A	1.5KE130CA	1500	111	5	124	137	1	8.4	179
1.5KE150A	1.5KE150CA	1500	128	5	143	158	1	7.2	207
1.5KE160A	1.5KE160CA	1500	136	5	152	168	1	6.8	219
1.5KE170A	1.5KE170CA	1500	145	5	162	179	1	6.4	234
1.5KE180A	1.5KE180CA	1500	154	5	171	189	1	6.1	246

Type		Peak Pulse Power	Stand-off Voltage	Maximum Reverse Current at VR	Breakdown Voltage at IT		Test Current	Maximum Peak Pulse Current	Maximum Clamping Voltage at Ipp
Uni-Polar	Bi-Polar	PPP	V(R)	IR	V (BR) (V)		IT	Ipp	Vc
		(W)	(V)	(uA)	Min.	Max.	(mA)	(A)	(V)
1.5KE200A	1.5KE200CA	1500	171	5	190	210	1	5.5	274
1.5KE220A	1.5KE220CA	1500	185	5	209	231	1	4.6	328
1.5KE250A	1.5KE250CA	1500	214	5	237	263	1	4.4	344
1.5KE300A	1.5KE300CA	1500	256	5	285	315	1	3.6	414
1.5KE350A	1.5KE350CA	1500	300	5	332	368	1	3.1	482
1.5KE400A	1.5KE400CA	1500	342	5	380	420	1	2.7	548
1.5KE440A	1.5KE440CA	1500	376	5	418	462	1	2.5	602

Ratings And Characteristic Curves

FIG. 1-PEAK PULSE POWER RATING CURVE

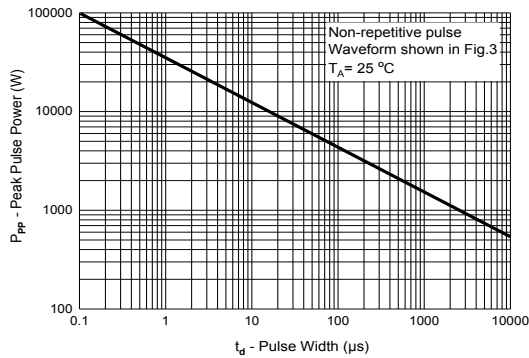


FIG. 2-PULSE DERATING CURVE

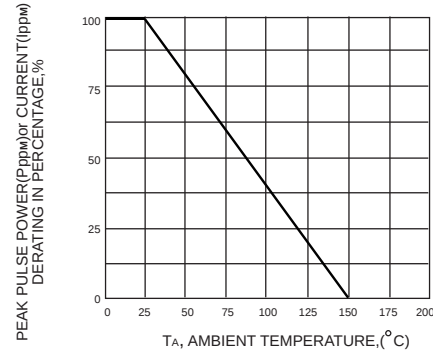


FIG.3-PULSE WAVEFORM

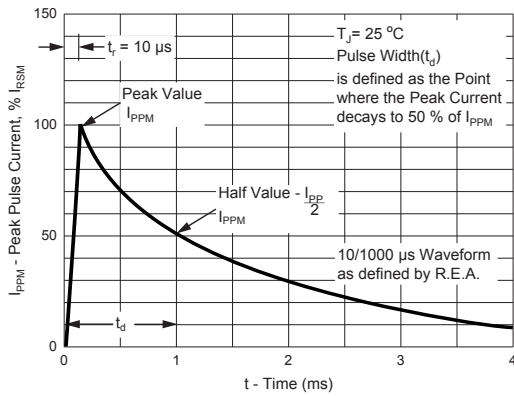


FIG. 4-TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

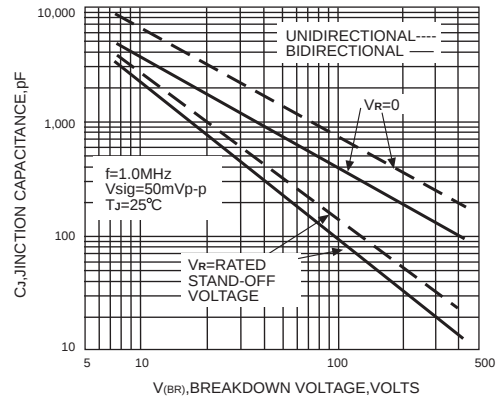


FIG.5-STEADY STATE POWER DERATING CURVE

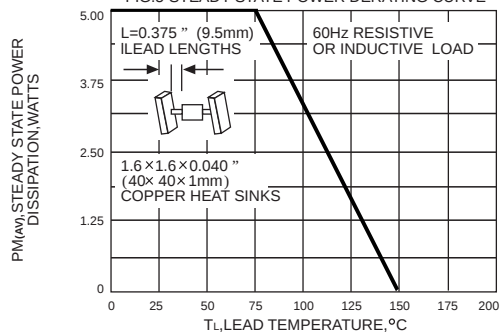


FIG.6-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL ONLY

