



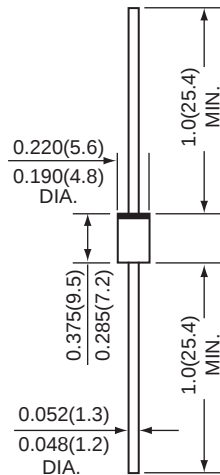
1.5KE SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

Breakdown Voltage - 6.8 to 440 Volts

Peak Pulse Power-1500 Watts

DO-201AE



*Dimensions in inches and (millimeters)



FEATURES

- * Glass passivated chip
- * 1500 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle) : 0.01%
- * Low leakage
- * Excellent clamping capability
- * Very fast response time

MECHANICAL DATA

Case : Molded plastic

Terminals : Plated axial leads , solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes positive end (cathode) except for bidirectional types

Weight : 0.045 ounces, 1.2 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

*Ratings at 25 °C ambient temperature unless otherwise specified.
single phase, half wave, 60Hz resistive or inductive load.
for capacitive load, derate current by 20%*

RATING	SYMBOL	VALUE	UNITS
Peak power dissipation with a 10/1000 μ s waveform (note 1)	P _{PPM}	1500	Watts
Peak pulse current with a 10/1000 μ s waveform (note 1)	I _{PPM}	See next table	Amps
Power dissipation on infinite heatsink at T _L = 75	P _D	6.5	Watts
Peak forward surge current, 8.3ms single half sine-wave unidirectional only (note 2)	I _{FSM}	200	Amps
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	

NOTES : (1) Non-repetitive current pulse per Fig. 5 and derated above T_A = 25 °C per Fig. 1
(2) Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

PART NUMBER		Working Peak Reverse Voltage V _{RWM} (V)	Breakdown Voltage V _{BR} @ I _T			Maximum Clamping Voltage V _C (V) @ I _{PP}	Maximum Reverse Surge Current I _{PP} (A) @ 10 x 1000 μ s sinewave	Maximum Reverse Leakage I _R (μ A) @ V _{RWM}
UNI-POLAR	BI-POLAR		Min. (V)	Max. (V)	I _T (mA)			
1.5KE6.8A	1.5KE6.8CA	5.8	6.46	7.14	10	10.5	143.00	1000
1.5KE7.5A	1.5KE7.5CA	6.4	7.13	7.88	10	11.3	133.00	500
1.5KE8.2A	1.5KE8.2CA	7.0	7.79	8.61	10	12.1	124.00	200
1.5KE9.1A	1.5KE9.1CA	7.8	8.65	9.56	1	13.4	112.00	50
1.5KE10A	1.5KE10CA	8.6	9.50	10.50	1	14.5	103.00	10
1.5KE11A	1.5KE11CA	9.4	10.45	11.55	1	15.6	96.20	5
1.5KE12A	1.5KE12CA	10.2	11.40	12.60	1	16.7	89.80	5
1.5KE13A	1.5KE13CA	11.1	12.35	13.65	1	18.2	82.40	5
1.5KE15A	1.5KE15CA	12.8	14.25	15.75	1	21.2	70.80	5
1.5KE16A	1.5KE16CA	13.6	15.20	16.80	1	22.5	66.70	5
1.5KE18A	1.5KE18CA	15.3	17.10	18.90	1	25.2	59.50	5
1.5KE20A	1.5KE20CA	17.1	19.00	21.00	1	27.7	54.20	5
1.5KE22A	1.5KE22CA	18.8	20.90	23.10	1	30.6	49.00	5
1.5KE24A	1.5KE24CA	20.5	22.80	25.20	1	33.2	45.20	5
1.5KE27A	1.5KE27CA	23.1	25.65	28.35	1	37.5	40.00	5
1.5KE30A	1.5KE30CA	25.6	28.50	31.50	1	41.4	36.20	5
1.5KE33A	1.5KE33CA	28.2	31.35	34.65	1	45.7	32.80	5
1.5KE36A	1.5KE36CA	30.8	34.20	37.80	1	49.9	30.10	5
1.5KE39A	1.5KE39CA	33.3	37.05	40.95	1	53.9	27.80	5
1.5KE43A	1.5KE43CA	36.8	40.85	45.15	1	59.3	25.30	5
1.5KE47A	1.5KE47CA	40.2	44.65	49.35	1	64.8	23.10	5
1.5KE51A	1.5KE51CA	43.6	48.45	53.55	1	70.1	21.40	5
1.5KE56A	1.5KE56CA	47.8	53.20	58.80	1	77.0	19.50	5
1.5KE62A	1.5KE62CA	53.0	58.90	65.10	1	85.0	17.60	5
1.5KE68A	1.5KE68CA	58.1	64.60	71.40	1	92.0	16.30	5
1.5KE75A	1.5KE75CA	64.1	71.25	78.75	1	103.0	14.60	5
1.5KE82A	1.5KE82CA	70.1	77.90	86.10	1	113.0	13.30	5
1.5KE91A	1.5KE91CA	77.8	86.45	95.55	1	125.0	12.00	5
1.5KE100A	1.5KE100CA	85.5	95.00	105.00	1	137.0	10.90	5
1.5KE110A	1.5KE110CA	94.0	104.50	115.50	1	152.0	9.87	5
1.5KE120A	1.5KE120CA	102.0	114.00	126.00	1	165.0	9.09	5
1.5KE130A	1.5KE130CA	111.0	123.50	136.50	1	179.0	8.38	5
1.5KE150A	1.5KE150CA	128.0	142.50	157.50	1	207.0	7.25	5
1.5KE160A	1.5KE160CA	136.0	152.00	168.00	1	219.0	6.85	5
1.5KE170A	1.5KE170CA	145.0	161.50	178.50	1	234.0	6.41	5
1.5KE180A	1.5KE180CA	154.0	171.00	189.00	1	246.0	6.10	5
1.5KE200A	1.5KE200CA	171.0	190.00	210.00	1	274.0	5.47	5
1.5KE220A	1.5KE220CA	185.0	209.00	231.00	1	328.0	4.57	5
1.5KE250A	1.5KE250CA	214.0	237.50	262.50	1	344.0	4.36	5
1.5KE300A	1.5KE300CA	256.0	285.00	315.00	1	414.0	3.62	5
1.5KE350A	1.5KE350CA	299.0	332.50	367.50	1	482.0	3.11	5
1.5KE380A	1.5KE380CA	325.0	361.00	399.00	1	524.0	2.86	5
1.5KE400A	1.5KE400CA	342.0	380.00	420.00	1	548.0	2.74	5
1.5KE440A	1.5KE440CA	376.0	418.00	462.00	1	602.0	2.49	5
1.5KE500A	1.5KE500CA	428.0	475.00	525.00	1	690.0	2.17	5
1.5KE520A	1.5KE520CA	445.0	494.00	546.00	1	718.0	2.09	5
1.5KE550A	1.5KE550CA	470.0	522.50	577.50	1	759.0	1.98	5
1.5KE600A	1.5KE600CA	513.0	570.00	630.00	1	828.0	1.81	5

NOTE : For bidirectional type having V_{RWM} of 10V and less, the I_R limit is double.
For parts without A, the V_{BR} is $\pm 10\%$

RATINGS AND CHARACTERISTIC CURVES 1.5KE SERIES

FIG. 1- PULSE DERATING CURVE

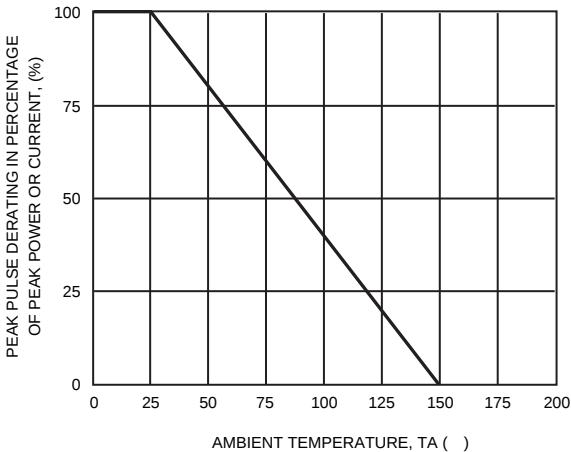


FIG. 2 - MAXIMUM NON-REPETITIVE

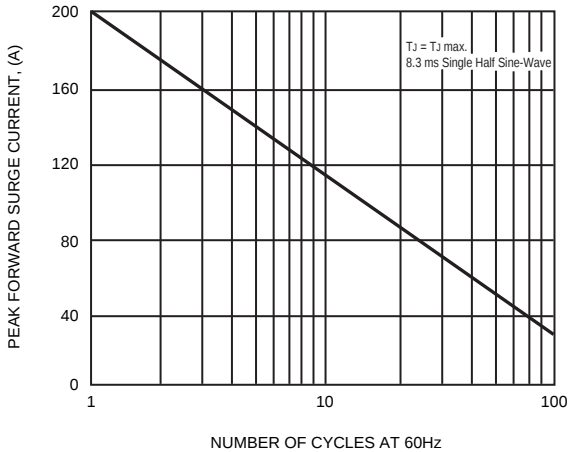


FIG. 3 - STEADY STATE POWER DERATING CURVE

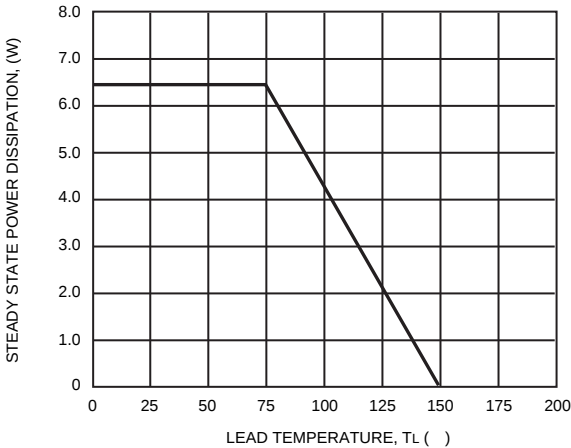


FIG. 4 - PEAK PULSE POWER RATING CURVE

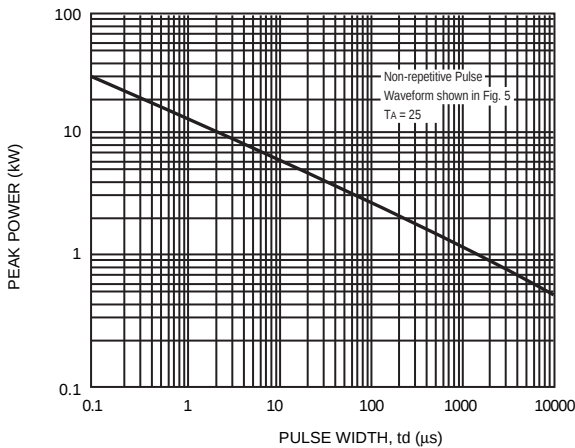


FIG. 5 - PULSE WAVEFORM

