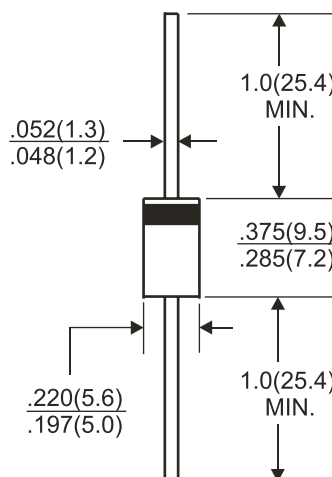




DO-27



All dimensions inches and (millimeters)

## Features

- 1500 Watts surge capability at 1ms
- Excellent clamping capability
- Low zener impedance
- Fast response time: typically less than 1.0ps from 0 Volt to 8 Volt min.
- Typical IR less than 1μA above 10 V
- High temperature soldering guaranteed 265 °C/10 seconds at 5 lbs (2.3kg) tension

## Mechanical Data

Case: Molded plastic

Terminals: Solder plated solderable per MIL-STD-202, Method 208

Polarity: Cathode band

Mounting Position: Any

Weight: 1.2 grams (approx)

## Maximum Ratings & Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

Ratings	Symble	Value	Unit
Minimum Peak Power Dissipation at $T_A = 25^\circ\text{C}$ , $T_P = 1\text{ms}$ (Note 1)	PPK	1500	W
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Length .375"(9.5mm)(Note 2)	$P_D$	5.0	W
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load(JEDEC method)(Note 3)	$I_{FSM}$	200	A
Operating and Storage Temperature Range	$T_J, T_S$	-55 to 175	$^\circ\text{C}$

### Notes:

- 1.Non-repetitive current pulse per fig.3 and derated above  $T_A = 25^\circ\text{C}$  per fig.2
- 2.Mounted on copper pad area 1.6"X1.6"(40mmX40mm) per fig.5
- 3.8.3ms single half sine-wave,duty cycle=4pulses per minute maximum.

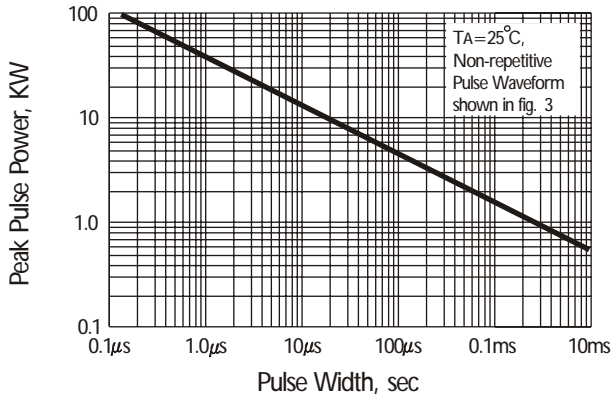
## Devices for Bipolar Applications

1. For Bidirection use C or CA suffix for types 1.5KE6.8 THRU 1.5KE440.
2. Electrical characteristics apply in both directions.

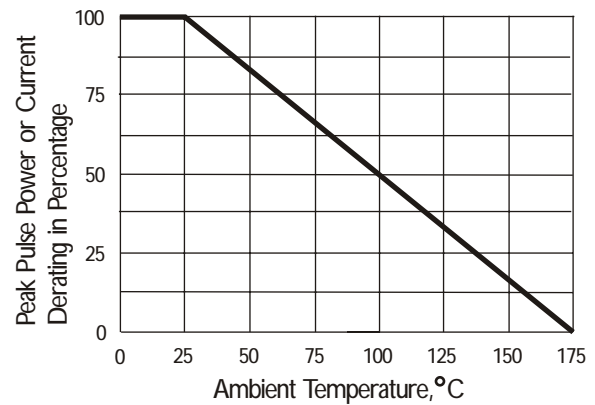
# Rating and Characteristic Curves ( $T_A=25^{\circ}\text{C}$ Unless otherwise noted )

## 1.5KE Series

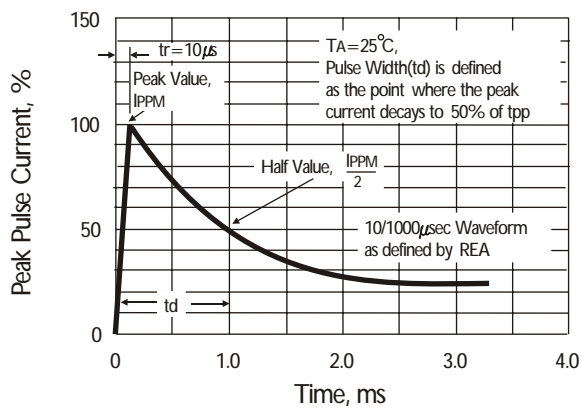
**Fig. 1 Peak Pulse Power Derating Curve**



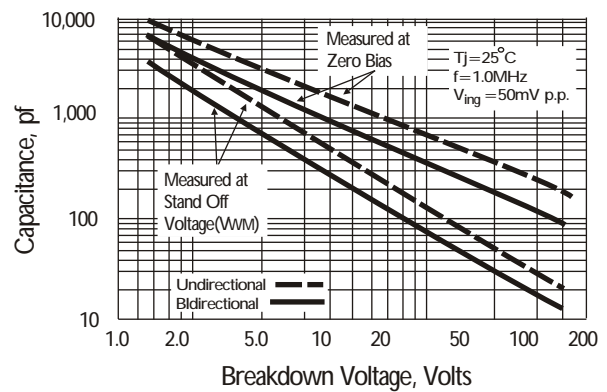
**Fig. 2 Pulse Derating Curve**



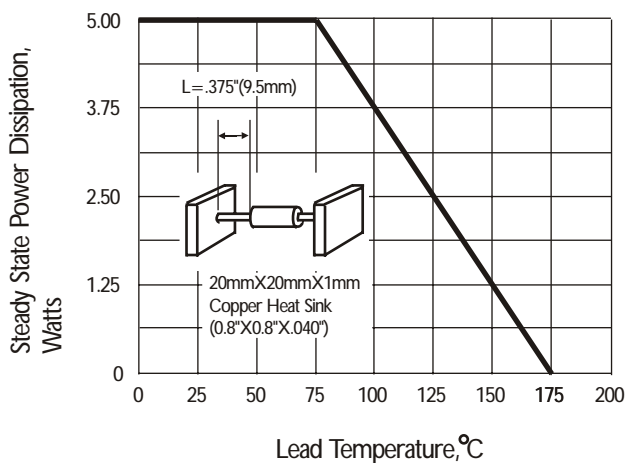
**Fig. 3 Pulse Wave Form**



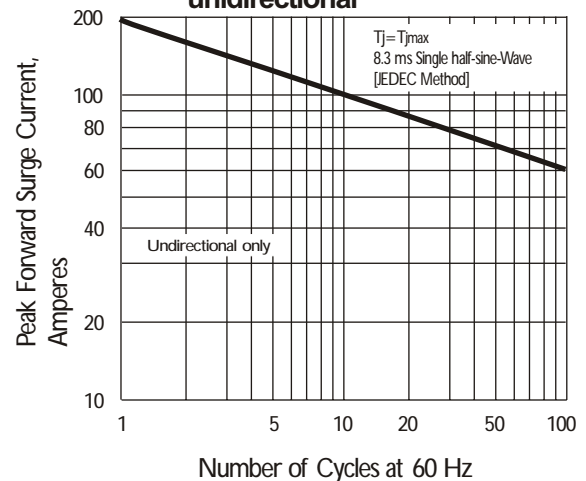
**Fig. 4 Typical Junction Capacitance**



**Fig. 5 Steady State Power Derating Curve**



**Fig. 6 Maximum Non-repetitive Peak Forward Surge current, unidirectional**



## 1.5KE / 1500 W Axial Lead TVS

Uni Directional Part Number	Reverse Stand-off Voltage VRWM(V)	Breakdown Voltage VBR(V) Min.@IT	Breakdown Voltage VRB(V) MAX.@IT	Test Current IT (mA)	Maximum Clamping Voltage @IPP Vc(V)	Peak Pulse Current IPP(A)	Reverse Leakage @ VRWM IR(μA)
1.5KE6.8	5.50	6.12	7.48	10	10.8	140.7	1000
1.5KE6.8A	5.80	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5	6.05	6.75	8.25	10	11.7	129.9	500
1.5KE7.5A	6.40	7.13	7.88	10	11.3	134.5	500
1.5KE8.2	6.63	7.38	9.02	10	12.5	121.6	200
1.5KE8.2A	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1	7.37	8.19	10.00	1	13.8	110.1	50
1.5KE9.1A	7.78	8.65	9.50	1	13.4	113.4	50
1.5KE10	8.10	9.00	11.00	1	15.0	101.3	10
1.5KE10A	8.55	9.50	10.50	1	14.5	104.8	10
1.5KE11	8.92	9.90	12.10	1	16.2	93.8	5
1.5KE11A	9.40	10.50	11.60	1	15.6	97.4	5
1.5KE12	9.72	10.80	13.20	1	17.3	87.9	5
1.5KE12A	10.20	11.40	12.60	1	16.7	91.0	5
1.5KE13	10.50	11.70	14.30	1	19.0	80.0	5
1.5KE13A	11.10	12.40	13.70	1	18.2	83.5	5
1.5KE15	12.10	13.50	16.50	1	22.0	69.1	5
1.5KE15A	12.80	14.30	15.80	1	21.2	71.7	5
1.5KE16	12.90	14.40	17.60	1	23.5	64.7	5
1.5KE16A	13.60	15.20	16.80	1	22.5	67.6	5
1.5KE18	14.50	16.20	19.80	1	26.5	57.4	5
1.5KE18A	15.30	17.10	18.90	1	25.2	60.3	5
1.5KE20	16.20	18.00	22.00	1	29.1	52.2	5
1.5KE20A	17.10	19.00	21.00	1	27.7	54.9	5
1.5KE22	17.80	19.80	24.20	1	31.9	47.6	5
1.5KE22A	18.80	20.90	23.10	1	30.6	49.7	5
1.5KE24	19.40	21.60	26.40	1	34.7	43.8	5
1.5KE24A	20.50	22.80	25.20	1	33.2	45.8	5
1.5KE27	21.80	24.30	29.70	1	39.1	38.9	5
1.5KE27A	23.10	25.70	28.40	1	37.5	40.5	5
1.5KE30	24.30	27.00	33.00	1	43.5	34.9	5
1.5KE30A	25.60	28.50	31.50	1	41.4	36.7	5
1.5KE33	26.80	29.70	36.30	1	47.7	31.9	5
1.5KE33A	28.20	31.40	34.70	1	45.7	33.3	5
1.5KE36	29.10	32.40	39.60	1	52.0	29.2	5
1.5KE36A	30.80	34.20	37.80	1	49.9	30.5	5
1.5KE39	31.60	35.10	42.90	1	56.4	27.0	5
1.5KE39A	33.30	37.10	41.00	1	53.9	28.2	5
1.5KE43	34.80	38.70	47.30	1	61.9	24.6	5
1.5KE43A	36.80	40.90	45.20	1	59.3	25.6	5
1.5KE47	38.10	42.30	51.70	1	67.8	22.4	5
1.5KE47A	40.20	44.70	49.40	1	64.8	23.5	5
1.5KE51	41.30	45.90	56.10	1	73.5	20.7	5
1.5KE51A	43.60	48.50	53.60	1	70.1	21.7	5
1.5KE56	45.40	50.40	61.60	1	80.5	18.9	5
1.5KE56A	47.80	53.20	58.80	1	77.0	19.7	5
1.5KE62	50.20	55.80	68.20	1	89.0	17.1	5
1.5KE62A	53.00	58.90	65.10	1	85.0	17.9	5

## 1.5KE / 1500 W Axial Lead TVS

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1.5KE68	55.10	61.20	74.80	1	98.0	15.5	5
1.5KE68A	58.10	64.60	71.40	1	92.0	16.5	5
1.5KE75	60.70	67.50	82.50	1	108.0	14.1	5
1.5KE75A	64.10	71.30	78.80	1	103.0	14.8	5
1.5KE82	66.40	73.80	90.20	1	118.0	12.9	5
1.5KE82A	70.10	77.90	86.10	1	113.0	13.5	5
1.5KE91	73.70	81.90	100.00	1	131.0	11.6	5
1.5KE91A	77.80	86.50	95.50	1	125.0	12.2	5
1.5KE100	81.00	90.00	110.00	1	144.0	10.6	5
1.5KE100A	85.50	95.00	105.00	1	137.0	11.1	5
1.5KE110	89.20	99.00	121.00	1	158.0	9.6	5
1.5KE110A	94.00	105.00	116.00	1	152.0	10.0	5
1.5KE120	97.20	108.00	132.00	1	173.0	8.7	5
1.5KE120A	102.00	114.00	126.00	1	165.0	9.2	5
1.5KE130	105.00	117.00	143.00	1	187.0	8.1	5
1.5KE130A	111.00	124.00	137.00	1	179.0	8.5	5
1.5KE150	121.00	135.00	165.00	1	215.0	7.1	5
1.5KE150A	128.00	143.00	158.00	1	207.0	7.3	5
1.5KE160	130.00	144.00	176.00	1	230.0	6.9	5
1.5KE160A	136.00	152.00	168.00	1	219.0	6.9	5
1.5KE170	138.00	153.00	187.00	1	244.0	6.2	5
1.5KE170A	145.00	162.00	179.00	1	234.0	6.5	5
1.5KE180	146.00	162.00	198.00	1	258.0	5.9	5
1.5KE180A	154.00	171.00	189.00	1	246.0	6.2	5
1.5KE200	162.00	180.00	220.00	1	287.0	5.3	5
1.5KE200A	171.00	190.00	210.00	1	274.0	5.5	5
1.5KE220	175.00	198.00	242.00	1	344.0	4.4	5
1.5KE220A	185.00	209.00	231.00	1	328.0	4.6	5
1.5KE250	202.00	225.00	275.00	1	360.0	4.2	5
1.5KE250A	214.00	237.00	263.00	1	344.0	4.4	5
1.5KE300	243.00	270.00	330.00	1	430.0	3.5	5
1.5KE300A	256.00	285.00	315.00	1	414.0	3.7	5
1.5KE350	284.00	315.00	385.00	1	504.0	3.0	5
1.5KE350A	300.00	332.00	368.00	1	482.0	3.2	5
1.5KE400	324.00	360.00	440.00	1	574.0	2.6	5
1.5KE400A	342.00	380.00	420.00	1	548.0	2.8	5
1.5KE440	356.00	396.00	484.00	1	631.0	2.4	5
1.5KE440A	376.00	418.00	462.00	1	600.0	2.5	5