



SEMICONDUCTOR

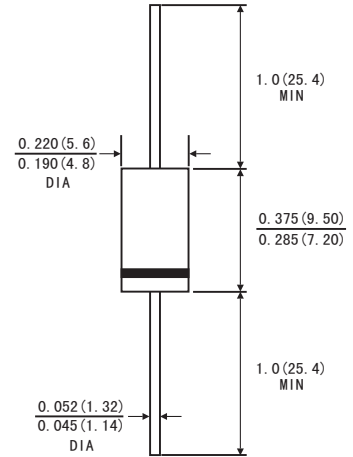
# 1.5KE6.8(C)A THRU 1.5KE600(C)A

TRANSIENT VOLTAGE SUPPRESSOR  
PEAK PULSE POWER-1500 Watts

## FEATURES

- 1500 Watts Pulse capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

### DO-201AD



Dimensions in inches and (millimeters)

## MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Solder Plated
- Polarity: By cathode band denotes uni-directional device, none cathode band denotes bi-directional device.

## DEVICES FOR BIDIRECTIONAL APPLICATIONS

1. For bi-directional use C suffix for Types .
2. Electrical characteristics apply in both directions.

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified)

	Symbols	Value	Units
Peak Pulse Power Dissipation at on 10/1000µs Waveform (Note 1.2)	P <sub>PK</sub>	1500	Watts
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Note 2,3)	I <sub>FSM</sub>	100	Amps
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C

- Note: 1. Non repetitive current pulse and derated above T<sub>A</sub>=25°C  
 2. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

# RATINGS AND CHARACTERISTIC CURVES (1.5KE SERIES)

Part number		Reverse Standoff Voltage VRWM (Volts)	Breakdown Voltage VBR (Volts)		Test Current (mA)	Maximum Clamping Voltage VC@Ipp (Volts)	Maximum Peak Pulse Current Ipp(A)	Maximum Reverse Leakage IR@VRWM (μA)
UNI	BI		MIN	MAX				
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10.0	10.5	143.0	3σ 值
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10.0	11.3	132.0	3σ 值
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10.0	12.1	124.0	3σ 值
1.5KE9.1A	1.5KE9.1CA	7.78	8.60	9.55	1.0	13.4	112.0	3σ 值
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1.0	14.5	103.0	3σ 值
1.5KE11A	1.5KE11CA	9.87	10.50	11.60	1.0	15.6	96.0	1.0
1.5KE12A	1.5KE12CA	10.71	11.40	12.60	1.0	16.7	90.0	1.0
1.5KE13A	1.5KE13CA	11.66	12.40	13.70	1.0	18.2	82.0	1.0
1.5KE15A	1.5KE15CA	13.44	14.30	15.80	1.0	21.2	71.0	1.0
1.5KE16A	1.5KE16CA	14.28	15.20	16.80	1.0	22.5	67.0	1.0
1.5KE18A	1.5KE18CA	16.07	17.10	18.90	1.0	25.2	59.5	1.0
1.5KE20A	1.5KE20CA	17.96	19.00	21.00	1.0	27.7	54.0	1.0
1.5KE22A	1.5KE22CA	19.74	20.90	23.10	1.0	30.6	49.0	1.0
1.5KE24A	1.5KE24CA	21.53	22.80	25.20	1.0	33.2	45.0	1.0
1.5KE27A	1.5KE27CA	24.26	25.70	28.40	1.0	37.5	40.0	1.0
1.5KE30A	1.5KE30CA	26.88	28.50	31.50	1.0	41.4	36.0	1.0
1.5KE33A	1.5KE33CA	29.61	31.40	34.70	1.0	45.7	33.0	1.0
1.5KE36A	1.5KE36CA	32.34	34.20	37.80	1.0	49.9	30.0	1.0
1.5KE39A	1.5KE39CA	34.97	37.10	41.00	1.0	53.9	28.0	1.0
1.5KE43A	1.5KE43CA	38.64	40.90	45.20	1.0	59.3	25.3	1.0
1.5KE47A	1.5KE47CA	42.21	44.70	49.40	1.0	64.8	23.2	1.0
1.5KE51A	1.5KE51CA	45.78	48.50	53.60	1.0	70.1	21.4	1.0
1.5KE56A	1.5KE56CA	50.19	53.20	58.80	1.0	77.0	19.5	1.0
1.5KE62A	1.5KE62CA	55.65	58.90	65.10	1.0	85.0	17.7	1.0
1.5KE68A	1.5KE68CA	61.01	64.60	71.40	1.0	92.0	16.3	1.0
1.5KE75A	1.5KE75CA	67.31	71.30	78.80	1.0	103.0	14.6	1.0
1.5KE82A	1.5KE82CA	73.61	77.90	86.10	1.0	113.0	13.3	1.0
1.5KE91A	1.5KE91CA	81.69	86.50	95.50	1.0	125.0	12.0	1.0
1.5KE100A	1.5KE100CA	89.78	95.00	105.00	1.0	137.0	11.0	1.0
1.5KE110A	1.5KE110CA	98.70	105.00	116.00	1.0	152.0	9.9	1.0

## RATINGS AND CHARACTERISTIC CURVES (1.5KE SERIES)

1.5KE120A	1.5KE120CA	107.10	114.00	126.00	1.0	165.0	9.1	1.0
1.5KE130A	1.5KE130CA	116.55	124.00	137.00	1.0	179.0	8.4	1.0
1.5KE150A	1.5KE150CA	134.40	143.00	158.00	1.0	207.0	7.2	1.0
1.5KE160A	1.5KE160CA	142.80	152.00	168.00	1.0	219.0	6.8	1.0
1.5KE170A	1.5KE170CA	152.25	162.00	179.00	1.0	234.0	6.4	1.0
1.5KE180A	1.5KE180CA	161.70	171.00	189.00	1.0	246.0	6.1	1.0
1.5KE200A	1.5KE200CA	179.55	190.00	210.00	1.0	274.0	5.5	1.0
1.5KE220A	1.5KE220CA	194.25	209.00	231.00	1.0	328.0	4.6	1.0
1.5KE250A	1.5KE250CA	224.70	237.00	263.00	1.0	344.0	4.4	1.0
1.5KE300A	1.5KE300CA	268.80	285.00	315.00	1.0	414.0	3.6	1.0
1.5KE350A	1.5KE350CA	315.00	332.00	368.00	1.0	482.0	3.1	1.0
1.5KE400A	1.5KE400CA	359.10	380.00	420.00	1.0	548.0	2.8	1.0
1.5KE440A	1.5KE440CA	394.80	418.00	462.00	1.0	602.0	2.5	1.0
1.5KE500A	1.5KE500CA	427.50	475.00	525.00	1.0	690.0	2.17	1.0
1.5KE520A	1.5KE520CA	444.60	494.00	546.00	1.0	717.6	2.09	1.0
1.5KE550A	1.5KE550CA	470.30	522.50	577.50	1.0	759.0	1.98	1.0
1.5KE600A	1.5KE600CA	513.0	570.00	630.00	1.0	828.0	1.81	1.0

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double

1.A transient suppressor is normally selected according to the working peak reverse voltage (VRWM), which should be equal to or greater than the DC or continuous peak operating voltage level.

2.VBR measured at pulse test current IT at an ambient temperature of 25°C.

3.Surge current waveform per Figure 2 and derate per Figure 3

# RATINGS AND CHARACTERISTIC CURVES (1.5KE SERIES)

FIG. 1-PEAK PULSE POWER CURVE

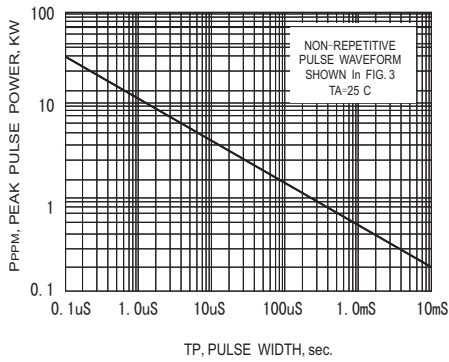


FIG. 2-PULSE DERATING CURVE

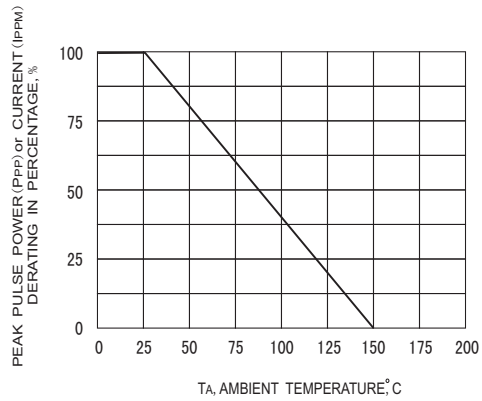


FIG. 3-PULSE WAVEFORM

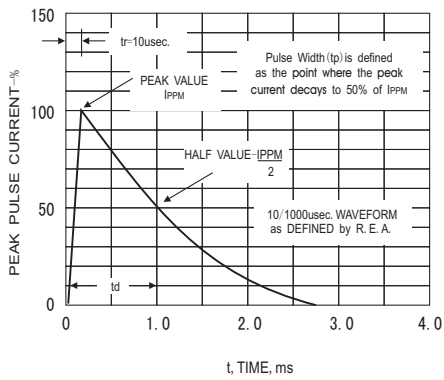


FIG. 4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

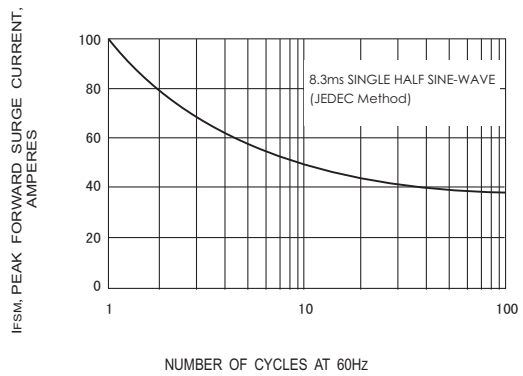


FIG. 5-Steady State Power Derating Curve

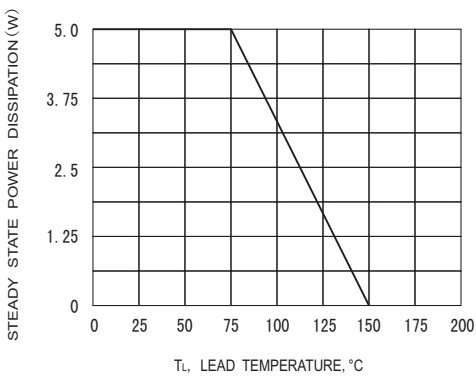


FIG. 6-TYPICAL JUNCTION CAPACITANCE

