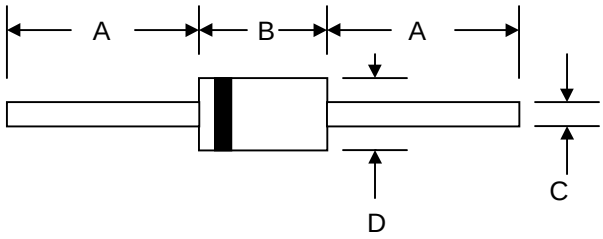
Features

- Glass Passivated Die Construction
- 1500W Peak Pulse Power Dissipation
- 6.8V – 440V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: JEDEC DO-201AE Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band or Cathode Notch
- Marking:
  Unidirectional – Device Code and Cathode Band
  Bidirectional – Device Code Only
- Weight: 1.20 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version,**

DO-201AD		
Dim	**Min**	**Max**
A	25.4	—
B	8.50	9.50
C	1.20	1.30
D	5.00	5.60
All Dimensions in mm		

"C" Suffix Designates Bi-directional Devices
"A" Suffix Designates 5% Tolerance Devices
No Suffix Designates 10% Tolerance Devices

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at T_A = 25°C (Note 1, 2, 5) Figure 3	P_{PPM}	1500 Minimum	W
Peak Forward Surge Current (Note 3)	I_{FSM}	200	A
Peak Pulse Current on 10/1000μS Waveform (Note 1) Figure 1	I_{PPM}	See Table 1	A
Steady State Power Dissipation (Note 2, 4)	$P_{M(AV)}$	5.0	W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175	°C

Note: 1. Non-repetitive current pulse, per Figure 1 and derated above T_A = 25°C per Figure 4.
2. Mounted on 40mm^2 copper pad.
3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum.
4. Lead temperature at 75°C = T_L.
5. Peak pulse power waveform is 10/1000μS.

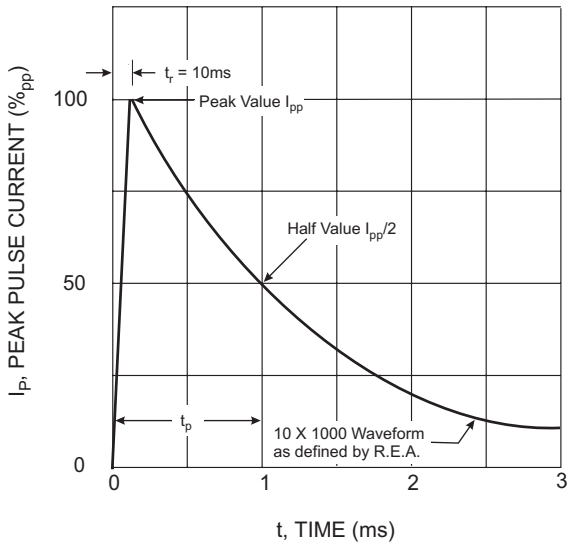


Fig. 1 Pulse Waveform

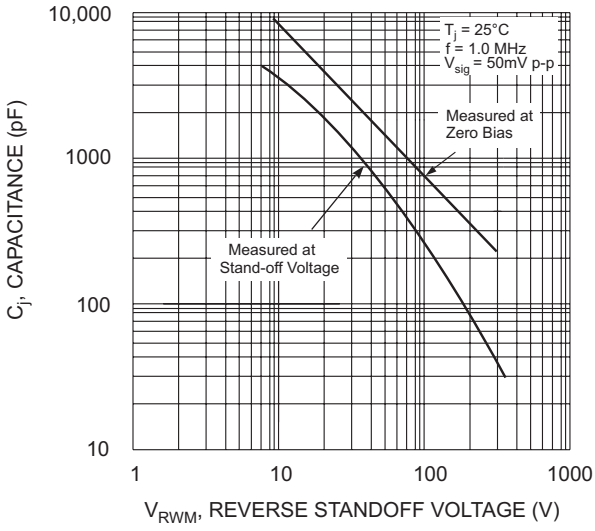


Fig. 2 Typical Junction Capacitance

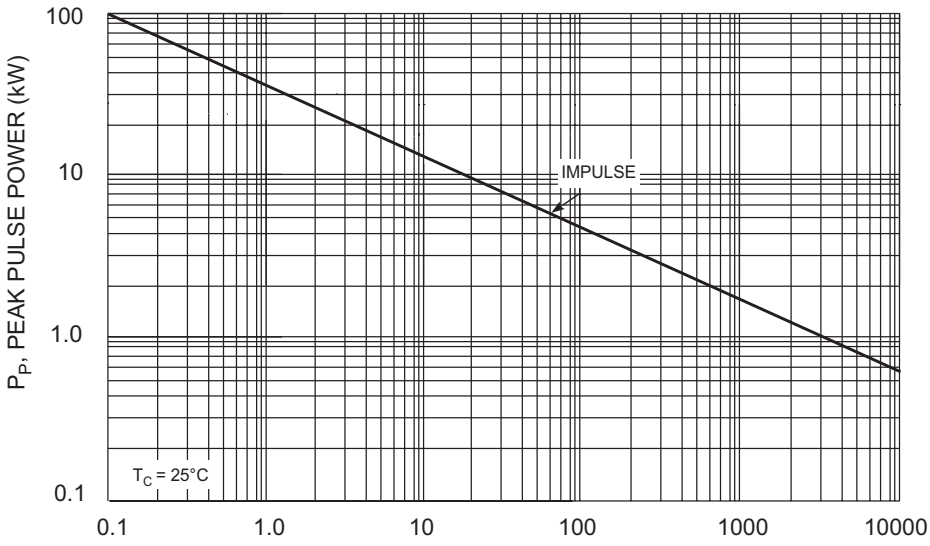


Fig. 3 Pulse Rating Curve

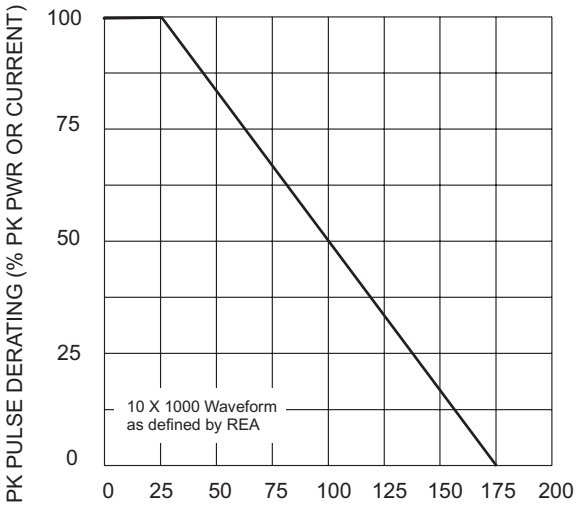


Fig. 4 Pulse Derating Curve

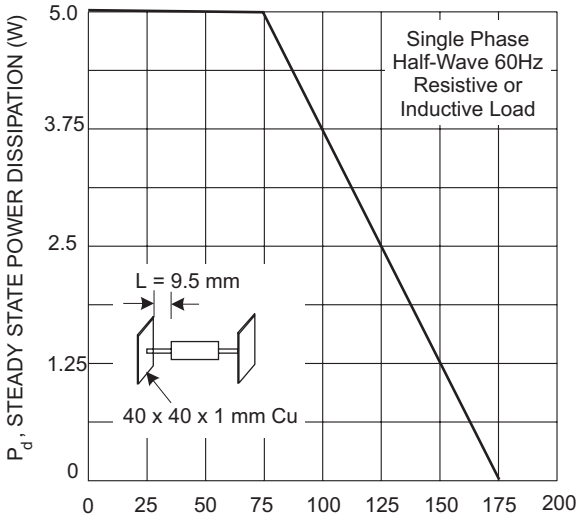


Fig. 5, Steady State Power Derating

UNI-DIRECTIONAL 1500 WATT AXIAL LEAD TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
1.5KE6.8	5.50	6.12	7.48	10	10.8	139.00	1000
1.5KE6.8A	5.80	6.45	7.14	10	10.5	143.00	1000
1.5KE7.5	6.05	6.75	8.25	10	11.7	128.00	500
1.5KE7.5A	6.40	7.13	7.88	10	11.3	132.00	500
1.5KE8.2	6.63	7.38	9.02	10	12.5	120.00	200
1.5KE8.2A	7.02	7.79	8.61	10	12.1	124.00	200
1.5KE9.1	7.37	8.19	10.00	1	13.8	109.00	50
1.5KE9.1A	7.78	8.65	9.50	1	13.4	112.00	50
1.5KE10	8.10	9.00	11.00	1	15.0	100.00	10
1.5KE10A	8.55	9.50	10.50	1	14.5	103.00	10
1.5KE11	8.92	9.90	12.10	1	16.2	93.00	5
1.5KE11A	9.40	10.50	11.60	1	15.6	96.00	5
1.5KE12	9.72	10.80	13.20	1	17.3	87.00	5
1.5KE12A	10.20	11.40	12.60	1	16.7	90.00	5
1.5KE13	10.50	11.70	14.30	1	19.0	79.00	5
1.5KE13A	11.10	12.40	13.70	1	18.2	82.00	5
1.5KE15	12.10	13.50	16.50	1	22.0	68.00	5
1.5KE15A	12.80	14.30	15.80	1	21.2	71.00	5
1.5KE16	12.90	14.40	17.60	1	23.5	64.00	5
1.5KE16A	13.60	15.20	16.80	1	22.5	67.00	5
1.5KE18	14.50	16.20	19.80	1	26.5	56.50	5
1.5KE18A	15.30	17.10	18.90	1	25.2	59.50	5
1.5KE20	16.20	18.00	22.00	1	29.1	51.50	5
1.5KE20A	17.10	19.00	21.00	1	27.7	54.00	5
1.5KE22	17.80	19.80	24.20	1	31.9	47.00	5
1.5KE22A	18.80	20.90	23.10	1	30.6	49.00	5
1.5KE24	19.40	21.60	26.40	1	34.7	43.00	5
1.5KE24A	20.50	22.80	25.20	1	33.2	45.00	5
1.5KE27	21.80	24.30	29.70	1	39.1	38.50	5
1.5KE27A	23.10	25.70	28.40	1	37.5	40.00	5
1.5KE30	24.30	27.00	33.00	1	43.5	34.50	5
1.5KE30A	25.60	28.50	31.50	1	41.4	36.00	5
1.5KE33	26.80	29.70	36.30	1	47.7	31.50	5
1.5KE33A	28.20	31.40	34.70	1	45.7	33.00	5
1.5KE36	29.10	32.40	39.60	1	52.0	29.00	5
1.5KE36A	30.80	34.20	37.80	1	49.9	30.00	5
1.5KE39	31.60	35.10	42.90	1	56.4	26.50	5
1.5KE39A	33.30	37.10	41.00	1	53.9	28.00	5
1.5KE43	34.80	38.70	47.30	1	61.9	24.00	5
1.5KE43A	36.80	40.90	45.20	1	59.3	25.30	5
1.5KE47	38.10	42.30	51.70	1	67.8	22.20	5
1.5KE47A	40.20	44.70	49.40	1	64.8	23.20	5
1.5KE51	41.30	45.90	56.10	1	73.5	20.40	5
1.5KE51A	43.60	48.50	53.60	1	70.1	21.40	5
1.5KE56	45.60	50.40	61.60	1	80.5	18.60	5
1.5KE56A	47.80	53.20	58.80	1	77.0	19.50	5
1.5KE62	50.20	55.80	68.20	1	89.0	16.90	5
1.5KE62A	53.00	58.90	65.10	1	85.0	17.70	5
1.5KE68	55.10	61.20	74.80	1	98.0	15.30	5
1.5KE68A	58.10	64.60	71.40	1	92.0	16.30	5
1.5KE75	60.70	67.50	82.50	1	108.0	13.90	5
1.5KE75A	64.10	71.30	78.80	1	103.0	14.60	5
1.5KE82	66.40	73.80	90.20	1	118.0	12.70	5
1.5KE82A	70.10	77.90	86.10	1	113.0	13.30	5
1.5KE91	73.70	81.90	100.00	1	131.0	11.40	5
1.5KE91A	77.80	86.50	95.50	1	125.0	12.00	5
1.5KE100	81.00	90.00	110.00	1	144.0	10.40	5
1.5KE100A	85.50	95.00	105.00	1	137.0	11.00	5
1.5KE110	89.20	99.00	121.00	1	158.0	9.50	5
1.5KE110A	94.00	105.00	116.00	1	152.0	9.90	5
1.5KE120	97.20	108.00	132.00	1	173.0	8.70	5
1.5KE120A	102.00	114.00	126.00	1	165.0	9.10	5
1.5KE130	105.00	117.00	143.00	1	187.0	8.00	5
1.5KE130A	111.00	124.00	137.00	1	179.0	8.40	5
1.5KE150	121.00	135.00	165.00	1	215.0	7.00	5
1.5KE150A	128.00	143.00	158.00	1	207.0	7.20	5
1.5KE160	130.00	144.00	176.00	1	230.0	6.50	5
1.5KE160A	136.00	152.00	168.00	1	219.0	6.80	5
1.5KE170	138.00	153.00	187.00	1	244.0	6.20	5
1.5KE170A	145.00	162.00	179.00	1	234.0	6.40	5
1.5KE180	146.00	162.00	198.00	1	258.0	5.80	5
1.5KE180A	154.00	171.00	189.00	1	246.0	6.10	5
1.5KE200	162.00	180.00	220.00	1	287.0	5.20	5
1.5KE200A	171.00	190.00	210.00	1	274.0	5.50	5
1.5KE220	175.00	198.00	242.00	1	344.0	4.30	5
1.5KE220A	185.00	209.00	231.00	1	328.0	4.60	5
1.5KE250	202.00	225.00	275.00	1	360.0	5.00	5
1.5KE250A	214.00	237.00	263.00	1	344.0	5.00	5
1.5KE300	243.00	270.00	330.00	1	430.0	5.00	5
1.5KE300A	256.00	285.00	315.00	1	414.0	5.00	5
1.5KE350	284.00	315.00	385.00	1	504.0	4.00	5
1.5KE350A	300.00	332.00	368.00	1	482.0	4.00	5
1.5KE400	324.00	360.00	440.00	1	574.0	4.00	5
1.5KE400A	342.00	380.00	420.00	1	548.0	4.00	5
1.5KE440	356.00	396.00	484.00	1	631.0	4.00	5
1.5KE440A	376.00	418.00	462.00	1	600.0	4.00	5

BI-DIRECTIONAL 1500 WATT AXIAL LEAD TVS

BI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
1.5KE6.8C	5.50	6.12	7.48	10	10.8	139.00	2000
1.5KE6.8CA	5.80	6.45	7.14	10	10.5	143.00	2000
1.5KE7.5C	6.05	6.75	8.25	10	11.7	128.00	1000
1.5KE7.5CA	6.40	7.13	7.88	10	11.3	132.00	1000
1.5KE8.2C	6.63	7.38	9.02	10	12.5	120.00	400
1.5KE8.2CA	7.02	7.79	8.61	10	12.1	124.00	400
1.5KE9.1C	7.37	8.19	10.00	1	13.8	109.00	100
1.5KE9.1CA	7.78	8.65	9.50	1	13.4	112.00	100
1.5KE10C	8.10	9.00	11.00	1	15.0	100.00	20
1.5KE10CA	8.55	9.50	10.50	1	14.5	103.00	20
1.5KE11C	8.92	9.90	12.10	1	16.2	93.00	10
1.5KE11CA	9.40	10.50	11.60	1	15.6	96.00	10
1.5KE12C	9.72	10.80	13.20	1	17.3	87.00	5
1.5KE12CA	10.20	11.40	12.60	1	16.7	90.00	5
1.5KE13C	10.50	11.70	14.30	1	19.0	79.00	5
1.5KE13CA	11.10	12.40	13.70	1	18.2	82.00	5
1.5KE15C	12.10	13.50	16.50	1	22.0	68.00	5
1.5KE15CA	12.80	14.30	15.80	1	21.2	71.00	5
1.5KE16C	12.90	14.40	17.60	1	23.5	64.00	5
1.5KE16CA	13.60	15.20	16.80	1	22.5	67.00	5
1.5KE18C	14.50	16.20	19.80	1	26.5	56.50	5
1.5KE18CA	15.30	17.10	18.90	1	25.2	59.50	5
1.5KE20C	16.20	18.00	22.00	1	29.1	51.50	5
1.5KE20CA	17.10	19.00	21.00	1	27.7	54.00	5
1.5KE22C	17.80	19.80	24.20	1	31.9	47.00	5
1.5KE22CA	18.80	20.90	23.10	1	30.6	49.00	5
1.5KE24C	19.40	21.60	26.40	1	34.7	43.00	5
1.5KE24CA	20.50	22.80	25.20	1	33.2	45.00	5
1.5KE27C	21.80	24.30	29.70	1	39.1	38.50	5
1.5KE27CA	23.10	25.70	28.40	1	37.5	40.00	5
1.5KE30C	24.30	27.00	33.00	1	43.5	34.50	5
1.5KE30CA	25.60	28.50	31.50	1	41.4	36.00	5
1.5KE33C	26.80	29.70	36.30	1	47.7	31.50	5
1.5KE33CA	28.20	31.40	34.70	1	45.7	33.00	5
1.5KE36C	29.10	32.40	39.60	1	52.0	29.00	5
1.5KE36CA	30.80	34.20	37.80	1	49.9	30.00	5
1.5KE39C	31.60	35.10	42.90	1	56.4	26.50	5
1.5KE39CA	33.30	37.10	41.00	1	53.9	28.00	5
1.5KE43C	34.80	38.70	47.30	1	61.9	24.00	5
1.5KE43CA	36.80	40.90	45.20	1	59.3	25.30	5
1.5KE47C	38.10	42.30	51.70	1	67.8	22.20	5
1.5KE47CA	40.20	44.70	49.40	1	64.8	23.20	5
1.5KE51C	41.30	45.90	56.10	1	73.5	20.40	5
1.5KE51CA	43.60	48.50	53.60	1	70.1	21.40	5
1.5KE56C	45.60	50.40	61.60	1	80.5	18.60	5
1.5KE56CA	47.80	53.20	58.80	1	77.0	19.50	5
1.5KE62C	50.20	55.80	68.20	1	89.0	16.90	5
1.5KE62CA	53.00	58.90	65.10	1	85.0	17.70	5
1.5KE68C	55.10	61.20	74.80	1	98.0	15.30	5
1.5KE68CA	58.10	64.60	71.40	1	92.0	16.30	5
1.5KE75C	60.70	67.50	82.50	1	108.0	13.90	5
1.5KE75CA	64.10	71.30	78.80	1	103.0	14.60	5
1.5KE82C	66.40	73.80	90.20	1	118.0	12.70	5
1.5KE82CA	70.10	77.90	86.10	1	113.0	13.30	5
1.5KE91C	73.70	81.90	100.00	1	131.0	11.40	5
1.5KE91CA	77.80	86.50	95.50	1	125.0	12.00	5
1.5KE100C	81.00	90.00	110.00	1	144.0	10.40	5
1.5KE100CA	85.50	95.00	105.00	1	137.0	11.00	5
1.5KE110C	89.20	99.00	121.00	1	158.0	9.50	5
1.5KE110CA	94.00	105.00	116.00	1	152.0	9.90	5
1.5KE120C	97.20	108.00	132.00	1	173.0	8.70	5
1.5KE120CA	102.00	114.00	126.00	1	165.0	9.10	5
1.5KE130C	105.00	117.00	143.00	1	187.0	8.00	5
1.5KE130CA	111.00	124.00	137.00	1	179.0	8.40	5
1.5KE150C	121.00	135.00	165.00	1	215.0	7.00	5
1.5KE150CA	128.00	143.00	158.00	1	207.0	7.20	5
1.5KE160C	130.00	144.00	176.00	1	230.0	6.50	5
1.5KE160CA	136.00	152.00	168.00	1	219.0	6.80	5
1.5KE170C	138.00	153.00	187.00	1	244.0	6.20	5
1.5KE170CA	145.00	162.00	179.00	1	234.0	6.40	5
1.5KE180C	146.00	162.00	198.00	1	258.0	5.80	5
1.5KE180CA	154.00	171.00	189.00	1	246.0	6.10	5
1.5KE200C	162.00	180.00	220.00	1	287.0	5.20	5
1.5KE200CA	171.00	190.00	210.00	1	274.0	5.50	5
1.5KE220C	175.00	198.00	242.00	1	344.0	4.30	5
1.5KE220CA	185.00	209.00	231.00	1	328.0	4.60	5
1.5KE250C	202.00	225.00	275.00	1	360.0	5.00	5
1.5KE250CA	214.00	237.00	263.00	1	344.0	5.00	5
1.5KE300C	243.00	270.00	330.00	1	430.0	5.00	5
1.5KE300CA	256.00	285.00	315.00	1	414.0	5.00	5
1.5KE350C	284.00	315.00	385.00	1	504.0	4.00	5
1.5KE350CA	300.00	332.00	368.00	1	482.0	4.00	5
1.5KE400C	324.00	360.00	440.00	1	574.0	4.00	5
1.5KE400CA	342.00	380.00	420.00	1	548.0	4.00	5
1.5KE440C	356.00	396.00	484.00	1	631.0	4.00	5
1.5KE440CA	376.00	418.00	462.00	1	600.0	4.00	5