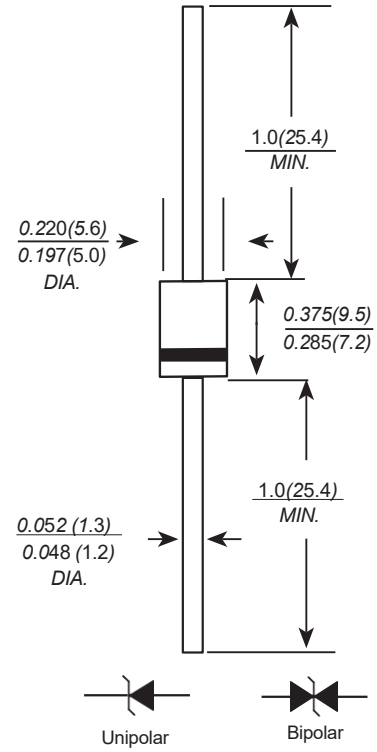
GLASS PASSIVAED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

Features

- 1500w peak pulse power capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time:typically less than 1.0ps from 0v to VBR for unidirectional and 5.0ns ror bidirectional types.
- High temperature soldering guaranteed: 265°C/10S/9.5mm lead length at 5 lbs tension

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	*VALUE*	*UNITS*
Peak power dissipation	P_{PPM}	Minimum 1500	Watts
Peak pulse reverse current	I_{PPM}	See Table 1	Amps
Steady state power dissapation (Note 2)	$P_{M(AV)}$	5.0	Watts
Peak forward surge current	I_{FSM}	200	Amps
Maximum instantaneous forward voltage at 100A for unidirectional only (Note 4)	V_F	3.5/5.0	Volts
Operating junction and storage temperature range	T_{STG},T_J	-55 to + 175	°C

Notes:

1. 10/1000μs waveform non-repetitive current pulse,per Fig.3 and derated above Ta=25℃ per Fig.2
2. T_L=75°C,lead lengths 9.5mm,Mounted on copper pad atea 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. VF=3.5V max.for devices of $V_{(BR)}$≤200V,and VF=5.0V max.for devices of $V_{(BR)}$>200V

ELECTRICAL CHARACTERISTICS (at T_A=25°C unless otherwise noted)

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T(mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage atV_{WM} $I_{D(NOTE3)}$(μA)	Maximum Peak Pulse Reverse Current $I_{PPM(NOTE2)}$ (Amps)	Maximum Clamping Voltage at I_{PPM} Vc(Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/°C)
	MIN	MAX						
1.5KE6.8A	6.45	7.14	10.0	5.80	1000.0	143	10.5	0.057
1.5KE6.8CA	6.45	7.14	10.0	5.80	1000.0	143	10.5	0.057
1.5KE7.5A	7.13	7.88	10.0	6.40	500.0	133	11.3	0.061
1.5KE7.5CA	7.13	7.88	10.0	6.40	500.0	133	11.3	0.061
1.5KE8.2A	7.79	8.61	10.0	7.02	200.0	124	12.1	0.065
1.5KE8.2CA	7.79	8.61	10.0	7.02	200.0	124	12.1	0.065
1.5KE9.1A	8.65	9.55	1.0	7.78	50.0	112	13.4	0.068
1.5KE9.1CA	8.65	9.55	1.0	7.78	50.0	112	13.4	0.068
1.5KE10A	9.50	10.5	1.0	8.55	10.0	103	14.5	0.073
1.5KE10CA	9.50	10.5	1.0	8.55	10.0	103	14.5	0.073
1.5KE11A	10.5	11.6	1.0	9.40	5.0	96.2	15.6	0.075
1.5KE11CA	10.5	11.6	1.0	9.40	5.0	96.2	15.6	0.075
1.5KE12A	11.4	12.6	1.0	10.2	5.0	89.8	16.7	0.078
1.5KE12CA	11.4	12.6	1.0	10.2	5.0	89.8	16.7	0.078
1.5KE13A	12.4	13.7	1.0	11.1	5.0	82.4	18.2	0.081
1.5KE13CA	12.4	13.7	1.0	11.1	5.0	82.4	18.2	0.081
1.5KE15A	14.3	15.8	1.0	12.8	5.0	70.8	21.2	0.084
1.5KE15CA	14.3	15.8	1.0	12.8	5.0	70.8	21.2	0.084
1.5KE16A	15.2	16.8	1.0	13.6	5.0	66.7	22.5	0.086
1.5KE16CA	15.2	16.8	1.0	13.6	5.0	66.7	22.5	0.086
1.5KE18A	17.1	18.9	1.0	15.3	5.0	59.5	25.5	0.088
1.5KE18CA	17.1	18.9	1.0	15.3	5.0	59.5	25.5	0.088
1.5KE20A	19.0	21.0	1.0	17.1	5.0	54.2	27.7	0.090
1.5KE20CA	19.0	21.0	1.0	17.1	5.0	54.2	27.7	0.090
1.5KE22A	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1.5KE22CA	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1.5KE24A	22.8	25.2	1.0	20.5	5.0	45.2	33.2	0.094
1.5KE24CA	22.8	25.2	1.0	20.5	5.0	45.2	33.2	0.094
1.5KE27A	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1.5KE27CA	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1.5KE30A	28.5	31.5	1.0	25.6	5.0	36.2	41.4	0.097
1.5KE30CA	28.5	31.5	1.0	25.6	5.0	36.2	41.4	0.097
1.5KE33A	31.4	34.7	1.0	28.2	5.0	32.8	45.7	0.098
1.5KE33CA	31.4	34.7	1.0	28.2	5.0	32.8	45.7	0.098
1.5KE36A	34.2	37.8	1.0	30.8	5.0	30.1	49.9	0.099
1.5KE36CA	34.2	37.8	1.0	30.8	5.0	30.1	49.9	0.099
1.5KE39A	37.1	41.0	1.0	33.3	5.0	27.8	53.9	0.100
1.5KE39CA	37.1	41.0	1.0	33.3	5.0	27.8	53.9	0.100
1.5KE43A	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1.5KE43CA	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1.5KE47A	44.7	49.4	1.0	40.2	5.0	23.1	64.8	0.101
1.5KE47CA	44.7	49.4	1.0	40.2	5.0	23.1	64.8	0.101
1.5KE51A	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1.5KE51CA	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1.5KE56A	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1.5KE56CA	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103

The electrical characteristics above is for reference only.

ELECTRICAL CHARACTERISTICS (at T_A=25°C unless otherwise noted)

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T(mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage atV_{WM} $I_{D(NOTE3)}$(μA)	Maximum Peak Pulse Reverse Current $I_{PPM(NOTE2)}$ (Amps)	Maximum Clamping Voltage at I_{PPM} Vc(Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/°C)
	MIN	MAX						
1.5KE62A	58.9	65.1	1.0	53.0	5.0	17.6	85.0	0.104
1.5KE62CA	58.9	65.1	1.0	53.0	5.0	17.6	85.0	0.104
1.5KE68A	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1.5KE68CA	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1.5KE75A	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1.5KE75CA	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1.5KE82A	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1.5KE82CA	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1.5KE91A	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1.5KE91CA	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1.5KE100A	95.0	105	1.0	85.5	5.0	10.9	137	0.106
1.5KE100CA	95.0	105	1.0	85.5	5.0	10.9	137	0.106
1.5KE110A	105	116	1.0	94.0	5.0	9.9	152	0.107
1.5KE110CA	105	116	1.0	94.0	5.0	9.9	152	0.107
1.5KE120A	114	126	1.0	102	5.0	9.1	165	0.107
1.5KE120CA	114	126	1.0	102	5.0	9.1	165	0.107
1.5KE130A	124	137	1.0	111	5.0	8.4	179	0.107
1.5KE130CA	124	137	1.0	111	5.0	8.4	179	0.107
1.5KE150A	143	158	1.0	128	5.0	7.2	207	0.108
1.5KE150CA	143	158	1.0	128	5.0	7.2	207	0.108
1.5KE160A	152	168	1.0	136	5.0	6.8	219	0.108
1.5KE160CA	152	168	1.0	136	5.0	6.8	219	0.108
1.5KE170A	162	179	1.0	145	5.0	6.4	234	0.108
1.5KE170CA	162	179	1.0	145	5.0	6.4	234	0.108
1.5KE180A	171	189	1.0	154	5.0	6.1	246	0.108
1.5KE180CA	171	189	1.0	154	5.0	6.1	246	0.108
1.5KE200A	190	210	1.0	171	5.0	5.5	274	0.108
1.5KE200CA	190	210	1.0	171	5.0	5.5	274	0.108
1.5KE220A	209	231	1.0	185	5.0	4.6	328	0.108
1.5KE220CA	209	231	1.0	185	5.0	4.6	328	0.108
1.5KE250A	237	263	1.0	214	5.0	4.4	344	0.110
1.5KE250CA	237	263	1.0	214	5.0	4.4	344	0.110
1.5KE300A	285	315	1.0	256	5.0	3.6	414	0.110
1.5KE300CA	285	315	1.0	256	5.0	3.6	414	0.110
1.5KE350A	332	368	1.0	300	5.0	3.1	482	0.110
1.5KE350CA	332	368	1.0	300	5.0	3.1	482	0.110
1.5KE400A	380	420	1.0	342	5.0	2.7	548	0.110
1.5KE400CA	380	420	1.0	342	5.0	2.7	548	0.110
1.5KE440A	418	462	1.0	376	5.0	2.5	602	0.110
1.5KE440CA	418	462	1.0	376	5.0	2.5	602	0.110

NOTES:

1. $V_{(BR)}$measured after I_T applied for 300μs,I_T=square wave pulse or equivalent
2. Surge current waveform per Fig.3 and derated per Fig.2
3. For bidirectional types having V_{WM} of 10 volts and less,the I_D limit is doubled
4. All items and symbols are consistent with ANSI/IEEE C62.35
5. For parts without A, the VBR is ± 10% and VC is 5% higher than with A parts, the parts without A are currently available, but not recommended for new designs. The parts with A are preferred.

The electrical characteristics above is for reference only.

FIG. 1-PEAK PULSE POWER RATING CURVE

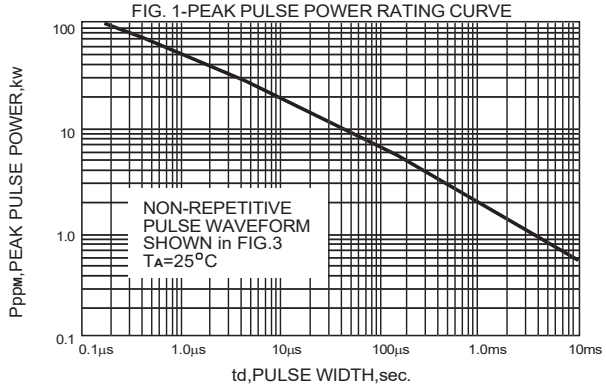


FIG. 2-PULSE DERATING CURVE

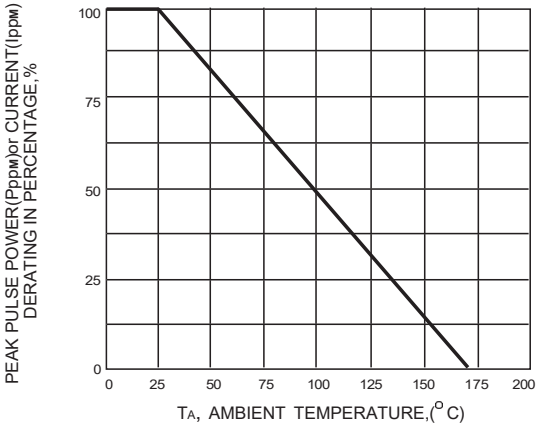


FIG.3-PULSE WAVEFORM

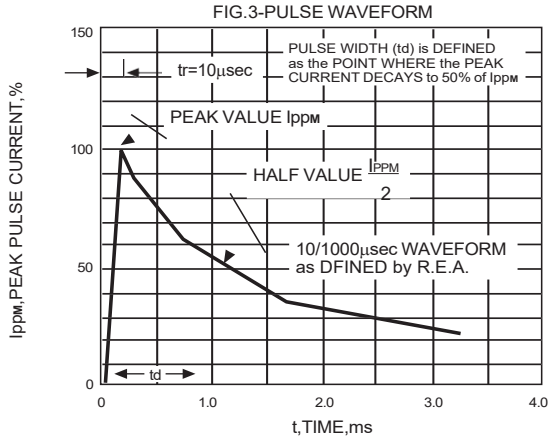


FIG. 4-TYPICAL JUNCTIONAL CAPACITANCE
UNIDIRECTIONAL

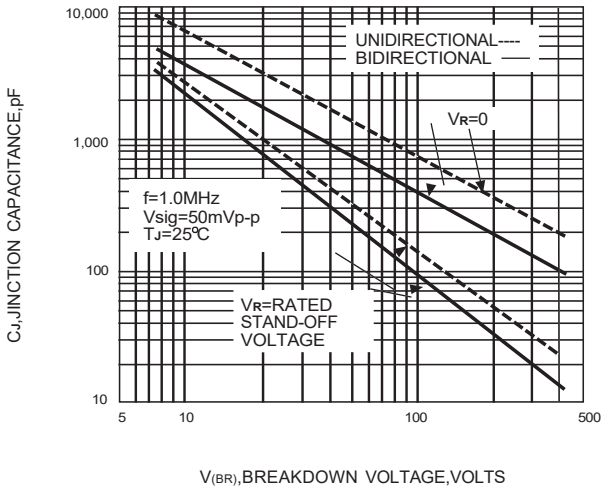


FIG.5-STEADY STATE POWER DERATING CURVE

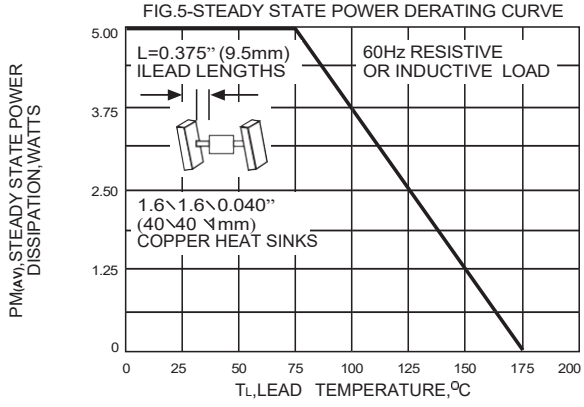


FIG.6-MAXIMUM NON-REPETITIVE FORWARD SURGE
CURRENT UNIDIRECTIONAL ONLY

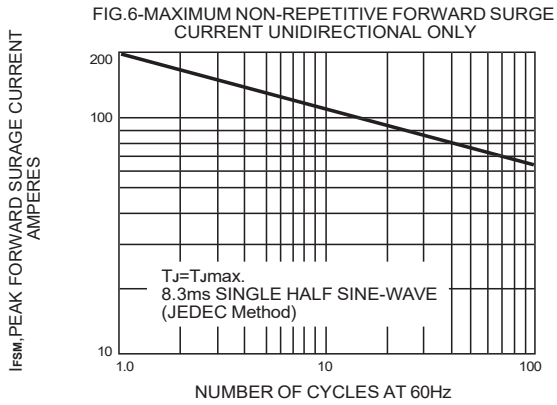
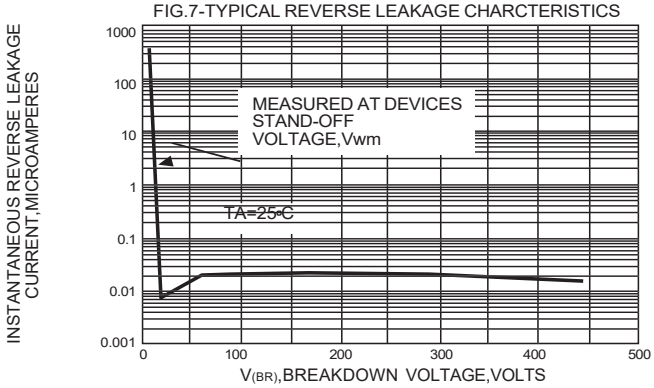


FIG.7-TYPICAL REVERSE LEAKAGE CHARCTERISTICS



The curve characteristics above is for reference only.