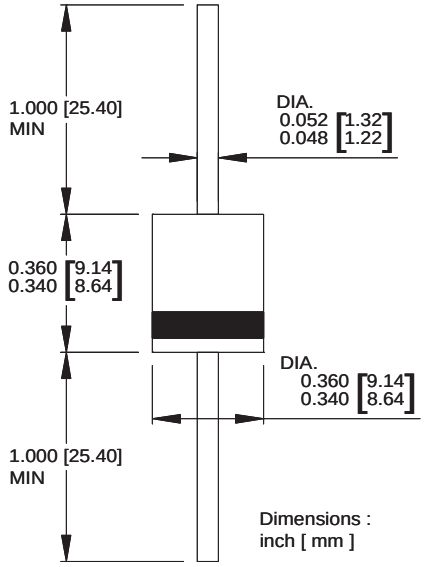
Reverse Voltage: 20 to 300 V
Peak Pulse Power: 20000 W

Features

- Glass passivated chip
- 20000 W peak pulse power capability with a 10/1000 μs waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Very fast response time
- RoHS compliant

Axial Lead

R-6/P600



Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202, method 208 guranteed
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000μs waveform(1)	P_{PP}	20000	W
Peak pulse current wih a 10/1000μs waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75 °C	P_D	8.0	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only(2)	I_{FSM}	500	A
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150	°C

Note:

(1)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °C per Fig.1

(2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

Ratings and Characteristics Curves (T_A=25℃ unless otherwise noted)

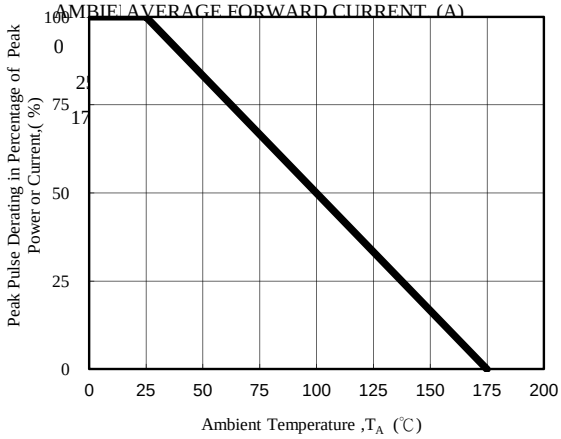


Fig. 1 - Pulse Derating Curve

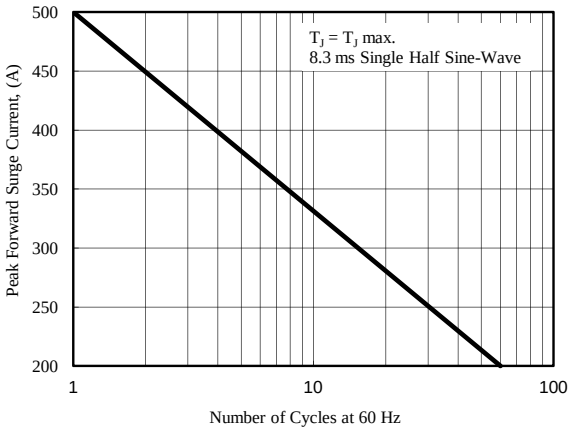


Fig. 2 - Maximum Non-Repetitive Surge Current

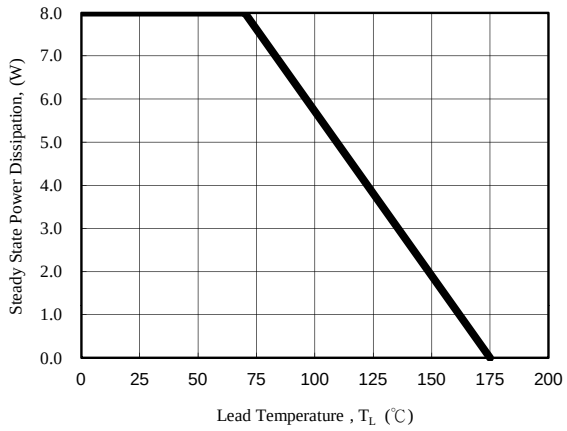


Fig. 3 - Steady State Power Derating Curve

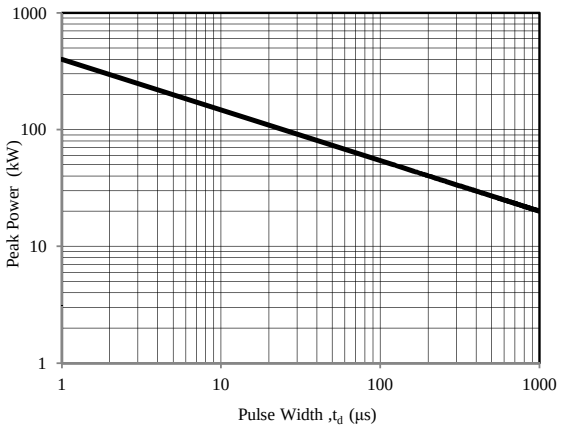


Fig. 4 - Peak Pulse Power Rating Curve

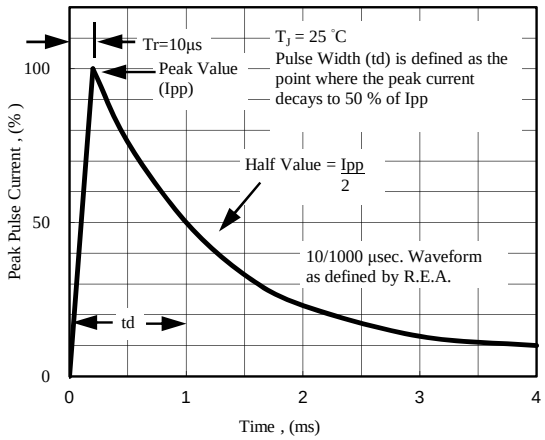


Fig. 5 - Pulse Waveform

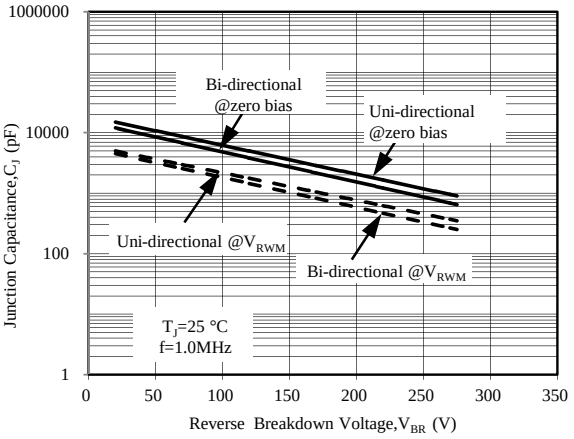


Fig. 6 - Typical Junction Capacitance

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage V_{BR} @I_T			Maximum Reverse Leakage I_R @V_{RWM} (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @I_{PP} (V)
		Min (V)	Max (V)	I_T (mA)				
T1.5KE6.8	T1.5KE6.8C	6.12	7.48	10	1000	5.5	138.89	10.8
T1.5KE6.8A	T1.5KE6.8CA	6.46	7.14	10	1000	5.8	142.86	10.5
T1.5KE7.5	T1.5KE7.5C	6.75	8.25	10	500	6.1	128.21	11.7
T1.5KE7.5A	T1.5KE7.5CA	7.13	7.88	10	500	6.4	132.74	11.3
T1.5KE8.2	T1.5KE8.2C	7.38	9.02	10	200	6.6	120.00	12.5
T1.5KE8.2A	T1.5KE8.2CA	7.79	8.61	10	200	7.0	123.97	12.1
T1.5KE9.1	T1.5KE9.1C	8.19	10.01	1	50	7.4	108.70	13.8
T1.5KE9.1A	T1.5KE9.1CA	8.65	9.56	1	50	7.8	111.94	13.4
T1.5KE10	T1.5KE10C	9.00	11.00	1	10	8.1	100.00	15.0
T1.5KE10A	T1.5KE10CA	9.50	10.50	1	10	8.6	103.45	14.5
T1.5KE11	T1.5KE11C	9.90	12.10	1	5	8.9	92.59	16.2
T1.5KE11A	T1.5KE11CA	10.45	11.55	1	5	9.4	96.15	15.6
T1.5KE12	T1.5KE12C	10.80	13.20	1	5	9.7	86.71	17.3
T1.5KE12A	T1.5KE12CA	11.40	12.60	1	5	10.2	89.82	16.7
T1.5KE13	T1.5KE13C	11.70	14.30	1	1	10.5	78.95	19.0
T1.5KE13A	T1.5KE13CA	12.35	13.65	1	1	11.1	82.42	18.2
T1.5KE15	T1.5KE15C	13.50	16.50	1	1	12.1	68.18	22.0
T1.5KE15A	T1.5KE15CA	14.25	15.75	1	1	12.8	70.75	21.2
T1.5KE16	T1.5KE16C	14.40	17.60	1	1	12.9	63.83	23.5
T1.5KE16A	T1.5KE16CA	15.20	16.80	1	1	13.6	66.67	22.5
T1.5KE18	T1.5KE18C	16.20	19.80	1	1	14.5	56.60	26.5
T1.5KE18A	T1.5KE18CA	17.10	18.90	1	1	15.3	59.52	25.2
T1.5KE20	T1.5KE20C	18.00	22.00	1	1	16.2	51.55	29.1
T1.5KE20A	T1.5KE20CA	19.00	21.00	1	1	17.1	54.15	27.7
T1.5KE22	T1.5KE22C	19.80	24.20	1	1	17.8	47.02	31.9
T1.5KE22A	T1.5KE22CA	20.90	23.10	1	1	18.8	49.02	30.6
T1.5KE24	T1.5KE24C	21.60	26.40	1	1	19.4	43.23	34.7
T1.5KE24A	T1.5KE24CA	22.80	25.20	1	1	20.5	45.18	33.2
T1.5KE27	T1.5KE27C	24.30	29.70	1	1	21.8	38.36	39.1
T1.5KE27A	T1.5KE27CA	25.65	28.35	1	1	23.1	40.00	37.5
T1.5KE30	T1.5KE30C	27.00	33.00	1	1	24.3	34.48	43.5
T1.5KE30A	T1.5KE30CA	28.50	31.50	1	1	25.6	36.23	41.4
T1.5KE33	T1.5KE33C	29.70	36.30	1	1	26.8	31.45	47.7
T1.5KE33A	T1.5KE33CA	31.35	34.65	1	1	28.2	32.82	45.7
T1.5KE36	T1.5KE36C	32.40	39.60	1	1	29.1	28.85	52.0
T1.5KE36A	T1.5KE36CA	34.20	37.80	1	1	30.8	30.06	49.9
T1.5KE39	T1.5KE39C	35.10	42.90	1	1	31.6	26.60	56.4
T1.5KE39A	T1.5KE39CA	37.05	40.95	1	1	33.3	27.83	53.9
T1.5KE43	T1.5KE43C	38.70	47.30	1	1	34.8	24.23	61.9
T1.5KE43A	T1.5KE43CA	40.85	45.15	1	1	36.8	25.30	59.3
T1.5KE47	T1.5KE47C	42.30	51.70	1	1	38.1	22.12	67.8
T1.5KE47A	T1.5KE47CA	44.65	49.35	1	1	40.2	23.15	64.8
T1.5KE51	T1.5KE51C	45.90	56.10	1	1	41.3	20.41	73.5
T1.5KE51A	T1.5KE51CA	48.45	53.55	1	1	43.6	21.40	70.1
T1.5KE56	T1.5KE56C	50.40	61.60	1	1	45.4	18.63	80.5
T1.5KE56A	T1.5KE56CA	53.20	58.80	1	1	47.8	19.48	77.0

Note:

1. Suffix 'A ' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device
2. Add suffix 'C 'or ' CA ' after part number to specify Bi-directional devices
3. For Bi-Directional devices having V_R of 10 volts and under, the I_R limit is double

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage V_{BR} @I_T			Maximum Reverse Leakage I_R @V_{RWM} (uA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @I_{PP} (V)
		Min (V)	Max (V)	I_T (mA)				
T1.5KE62	T1.5KE62C	55.80	68.20	1	1	50.2	16.85	89.0
T1.5KE62A	T1.5KE62CA	58.90	65.10	1	1	53.0	17.65	85.0
T1.5KE68	T1.5KE68C	61.20	74.80	1	1	55.1	15.31	98.0
T1.5KE68A	T1.5KE68CA	64.60	71.40	1	1	58.1	16.30	92.0
T1.5KE75	T1.5KE75C	67.50	82.50	1	1	60.7	13.89	108.0
T1.5KE75A	T1.5KE75CA	71.25	78.75	1	1	64.1	14.56	103.0
T1.5KE82	T1.5KE82C	73.80	90.20	1	1	66.4	12.71	118.0
T1.5KE82A	T1.5KE82CA	77.90	86.10	1	1	70.1	13.27	113.0
T1.5KE91	T1.5KE91C	81.90	100.10	1	1	73.7	11.45	131.0
T1.5KE91A	T1.5KE91CA	86.45	95.55	1	1	77.8	12.00	125.0
T1.5KE100	T1.5KE100C	90.00	110.00	1	1	81.0	10.42	144.0
T1.5KE100A	T1.5KE100CA	95.00	105.00	1	1	85.5	10.95	137.0
T1.5KE110	T1.5KE110C	99.00	121.00	1	1	89.2	9.49	158.0
T1.5KE110A	T1.5KE110CA	104.50	115.50	1	1	94.0	9.87	152.0
T1.5KE120	T1.5KE120C	108.00	132.00	1	1	97.2	8.67	173.0
T1.5KE120A	T1.5KE120CA	114.00	126.00	1	1	102.0	9.09	165.0
T1.5KE130	T1.5KE130C	117.00	143.00	1	1	105.0	8.02	187.0
T1.5KE130A	T1.5KE130CA	123.50	136.50	1	1	111.0	8.38	179.0
T1.5KE150	T1.5KE150C	135.00	165.00	1	1	121.0	6.98	215.0
T1.5KE150A	T1.5KE150CA	142.50	157.50	1	1	128.0	7.25	207.0
T1.5KE160	T1.5KE160C	144.00	176.00	1	1	130.0	6.52	230.0
T1.5KE160A	T1.5KE160CA	152.00	168.00	1	1	136.0	6.85	219.0
T1.5KE170	T1.5KE170C	153.00	187.00	1	1	138.0	6.15	244.0
T1.5KE170A	T1.5KE170CA	161.50	178.50	1	1	145.0	6.41	234.0
T1.5KE180	T1.5KE180C	162.00	198.00	1	1	146.0	5.81	258.0
T1.5KE180A	T1.5KE180CA	171.00	189.00	1	1	154.0	6.10	246.0
T1.5KE200	T1.5KE200C	180.00	220.00	1	1	162.0	5.23	287.0
T1.5KE200A	T1.5KE200CA	190.00	210.00	1	1	171.0	5.47	274.0
T1.5KE220	T1.5KE220C	198.00	242.00	1	1	175.0	4.36	344.0
T1.5KE220A	T1.5KE220CA	209.00	231.00	1	1	185.0	4.57	328.0
T1.5KE250	T1.5KE250C	225.00	275.00	1	1	202.0	4.17	360.0
T1.5KE250A	T1.5KE250CA	237.50	262.50	1	1	214.0	4.36	344.0
T1.5KE300	T1.5KE300C	270.00	330.00	1	1	243.0	3.49	430.0
T1.5KE300A	T1.5KE300CA	285.00	315.00	1	1	256.0	3.62	414.0
T1.5KE350	T1.5KE350C	315.00	385.00	1	1	284.2	2.98	504.0
T1.5KE350A	T1.5KE350CA	332.50	367.50	1	1	299.3	3.11	482.0
T1.5KE380	T1.5KE380C	342.00	418.00	1	1	308.6	2.74	547.2
T1.5KE380A	T1.5KE380CA	361.00	399.00	1	1	324.9	2.86	524.4
T1.5KE400	T1.5KE400C	360.00	440.00	1	1	324.8	2.60	574.0
T1.5KE400A	T1.5KE400CA	380.00	420.00	1	1	342.0	2.72	548.0
T1.5KE440	T1.5KE440C	396.00	484.00	1	1	357.3	2.37	631.0
T1.5KE440A	T1.5KE440CA	418.00	462.00	1	1	376.2	2.47	602.0
T1.5KE500	T1.5KE500C	450.00	550.00	1	1	406.0	2.08	720.0
T1.5KE500A	T1.5KE500CA	475.00	525.00	1	1	427.5	2.17	690.0
T1.5KE520	T1.5KE520C	468.00	572.00	1	1	422.2	2.00	748.8
T1.5KE520A	T1.5KE520CA	494.00	546.00	1	1	444.6	2.09	717.6
T1.5KE550	T1.5KE550C	495.00	605.00	1	1	446.6	1.89	792.0
T1.5KE550A	T1.5KE550CA	522.50	577.50	1	1	470.3	1.98	759.0
T1.5KE600	T1.5KE600C	540.00	660.00	1	1	487.2	1.74	864.0
T1.5KE600A	T1.5KE600A	570.00	630.00	1	1	513.0	1.81	828.0