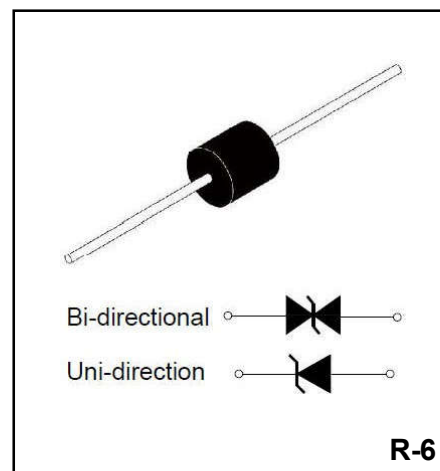


8000W GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

Peak Pulse Power: 8000 W
Reverse Voltage: 5.0V to 250V

FEATURES

- ✦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✦ Glass passivated junction
- ✦ 8000W Peak Pulse Power
- ✦ capability on 10/1000 μ s waveform
- ✦ Excellent clamping capability
- ✦ Repetition rate (duty cycle): 0.05%
- ✦ Low incremental surge resistance
- ✦ Fast response time: typically less than 1.0 ps from 0 volts to BV
- ✦ Typical Id less than 1 μ A above 10V
- ✦ High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension



MECHANICAL DATA

- ✦ Case: Molded plastic over glass passivated junction
- ✦ Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: Color band denoted positive end (cathode) except Bipolar
- ✦ Mounting Position: Any
- ✦ Weight: 0.07 ounce, 2.1 gram

DEVICES FOR BIPOLAR APPLICATIONS

- ✦ For Bidirectional use C or CA Suffix for types 8KP5.0 thru types 8KP250 Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μ s waveform (NOTE 1)	P _{PPM}	8000	W
Peak Pulse Current of on 10-1000 μ s waveform (NOTE 1)	I _{PPM}	SEE TABLE 1	A
Steady State Power Dissipation at Tl=75°C Lead Lengths.375", (9.5mm)(NOTE 2)	P _{M(AV)}	8.0	W
Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method) (NOTE 3)	I _{FSM}	400.0	A
Operatings and Storage Temperature Range	T _J , T _{STG}	-55 to +175	°C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above Ta=25 °C per Fig.2.

2. Mounted on Copper Pad area of 0.8x0.8" (20x20mm) per Fig.5.

3. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle=4 pulses per minutes maximum

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage $V_{BR} @ I_T$ (Volts)		Test Current I_T (mA)	Maximum Clamping Voltage $V_C @ I_{PP}$ (Volts)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage $I_R @ V_R$ (μA)
			MIN	MAX				
8KP5.0A	8KP5.0CA	5	6.4	7	50	9.2	887	5000
8KP6.0A	8KP6.0CA	6	6.67	7.37	50	10.3	792	5000
8KP6.5A	8KP6.5CA	6.5	7.22	7.98	50	11.2	729	2000
8KP7.0A	8KP7.0CA	7	7.78	8.6	50	12	680	1000
8KP7.5A	8KP7.5CA	7.5	8.33	9.21	5	12.9	632	250
8KP8.0A	8KP8.0CA	8	8.89	9.83	5	13.6	600	150
8KP8.5A	8KP8.5CA	8.5	9.44	10.4	5	14.4	567	50
8KP9.0A	8KP9.0CA	9	10	11.1	5	15.4	530	20
8KP10A	8KP10CA	10	11.1	12.3	5	17	480	15
8KP11A	8KP11CA	11	12.2	13.5	5	18.2	448	2
8KP12A	8KP12CA	12	13.3	14.7	5	19.9	410	2
8KP13A	8KP13CA	13	14.4	15.9	5	21.5	380	2
8KP14A	8KP14CA	14	15.6	17.2	5	23.2	352	2
8KP15A	8KP15CA	15	16.7	18.5	5	24.4	334	2
8KP16A	8KP16CA	16	17.8	19.7	5	26	314	2
8KP17A	8KP17CA	17	18.9	20.9	5	27.6	296	2
8KP18A	8KP18CA	18	20	22.1	5	29.2	280	2
8KP20A	8KP20CA	20	22.2	24.5	5	32.4	252	2
8KP22A	8KP22CA	22	24	26.9	5	35.5	230	2
8KP24A	8KP24CA	24	26.7	29.5	5	38.9	210	2
8KP26A	8KP26CA	26	28.9	31.9	5	42.1	194	2
8KP28A	8KP28CA	28	31.1	34.4	5	45.4	180	2
8KP30A	8KP30CA	30	33.3	36.8	5	48.4	169	2
8KP33A	8KP33CA	33	36.7	40.6	5	53.3	153	2
8KP36A	8KP36CA	36	40	44.2	5	58.1	140	2
8KP40A	8KP40CA	40	44.4	49.1	5	64.5	127	2
8KP43A	8KP43CA	43	47.8	52.8	5	69.4	118	2
8KP45A	8KP45CA	45	50	55.3	5	72.7	112	2
8KP48A	8KP48CA	48	53.3	58.9	5	77.4	105	2
8KP51A	8KP51CA	51	56.7	62.7	5	82.4	99	2
8KP54A	8KP54CA	54	60	66.3	5	87.1	94	2
8KP58A	8KP58CA	58	64.4	71.2	5	93.6	87	2
8KP60A	8KP60CA	60	66.7	73.7	5	96.8	84	2
8KP64A	8KP64CA	64	71.1	78.6	5	103	79	2
8KP70A	8KP70CA	70	77.8	86	5	113	72	2
8KP75A	8KP75CA	75	83.3	92.1	5	121	67	2
8KP78A	8KP78CA	78	86.7	95.8	5	126	65	2
8KP85A	8KP85CA	85	94.4	104	5	137	60	2
8KP90A	8KP90CA	90	100	111	5	146	56	2
8KP100A	8KP100CA	100	110	123	5	162	50	2

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage $V_{BR} @ I_T$ (Volts)		Test Current I_T (mA)	Maximum Clamping Voltage $V_C @ I_{PP}$ (Volts)	Maximum Peak Pulse Current I_{PP} (A)	Maximun Reverse Leakage $I_R @ V_R$ (μA)
			MIN	MAX				
8KP110A	8KP110CA	110	122	135	5	177	46	2
8KP120A	8KP120CA	120	133	147	5	193	42	2
8KP130A	8KP130CA	130	144	159	5	209	39.0	2
8KP150A	8KP150CA	150	167	185	5	243	33.6	2
8KP160A	8KP160CA	160	178	197	5	259	31.5	2
8KP170A	8KP170CA	170	189	209	5	275	29.6	2
8KP180A	8KP180CA	180	200	221	5	292	28.0	2
8KP190A	8KP190CA	190	211	233	5	310	26.4	2
8KP200A	8KP200CA	200	222	246	5	329.2	24.8	2
8KP210A	8KP210CA	210	233	258	5	349.5	23.4	2
8KP220A	8KP220CA	220	244	270	5	371.1	21.9	2
8KP250A	8KP250CA	250	277	306	5	425	19.2	2

Series Rating and Characteristics

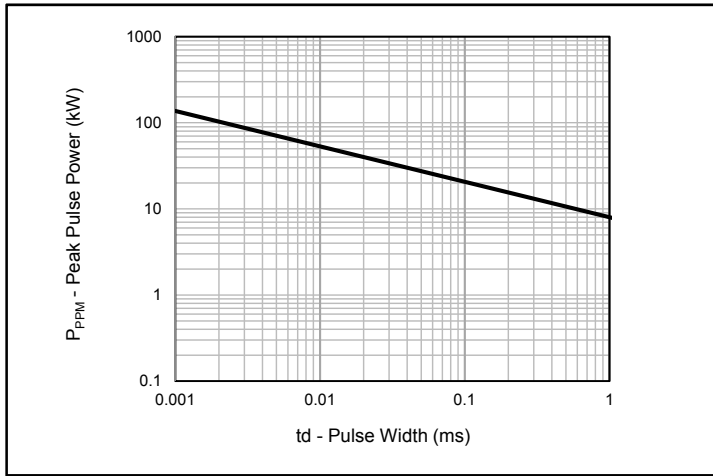


Fig.1 - Peak Pulse Power Rating

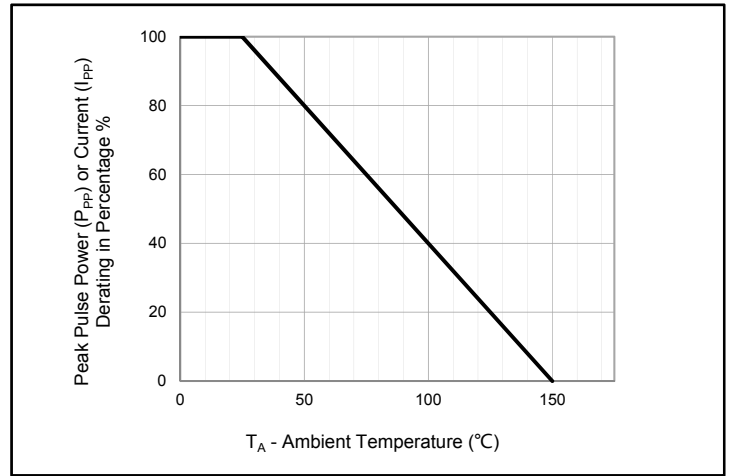


Fig.2 - Pulse Derating Curve

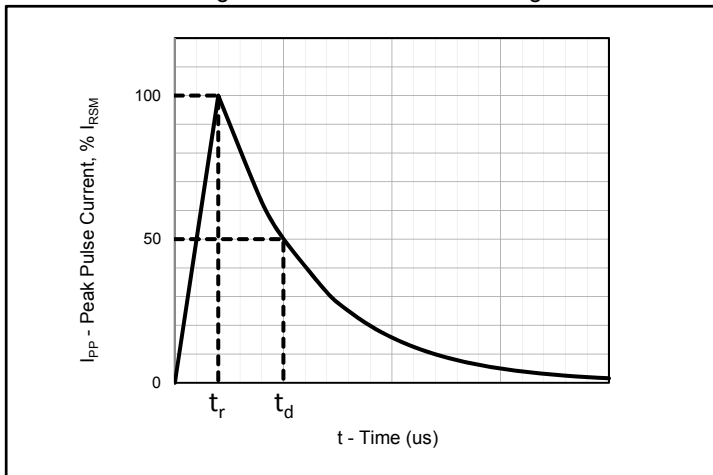


Fig.3 - Pulse Waveform

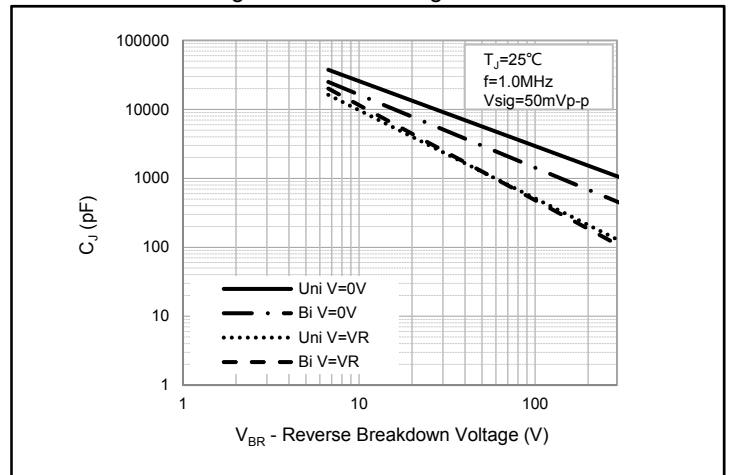


Fig.4 - Typical Junction Capacitance

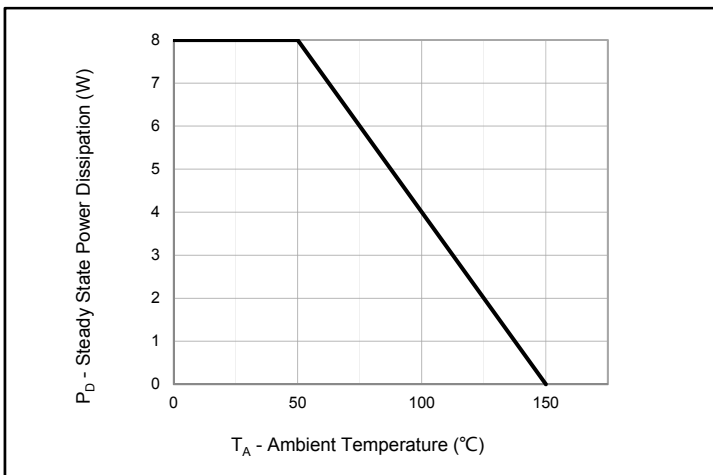


Fig.5 - Steady State Power Dissipation Derating Curve

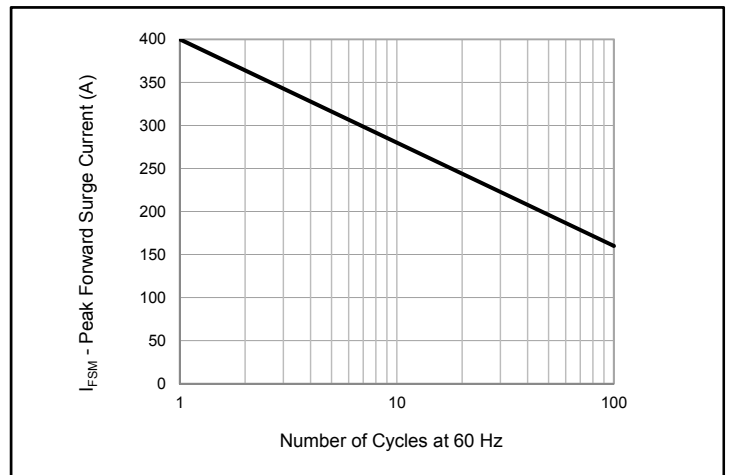
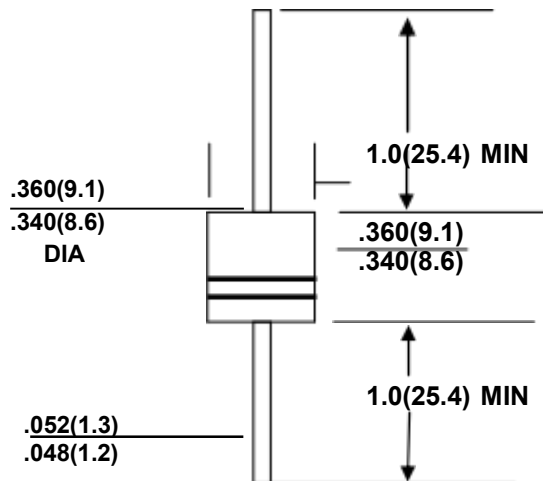


Fig.6 - Maximum Non-Repetitive Peak Forward Surge Current
Uni-Directional Only

Package Outline R-6



Dimensions in inches (millimeters)

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
R-6	BOX	300	EIA-481-1

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