

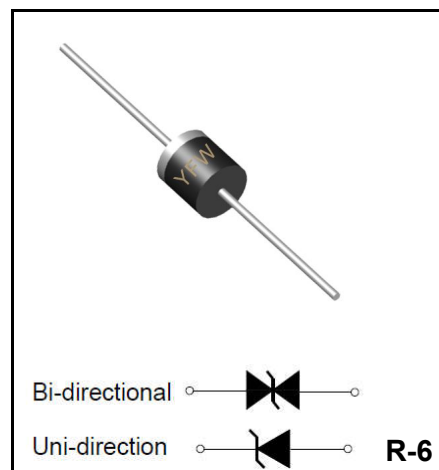
8000W GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

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°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

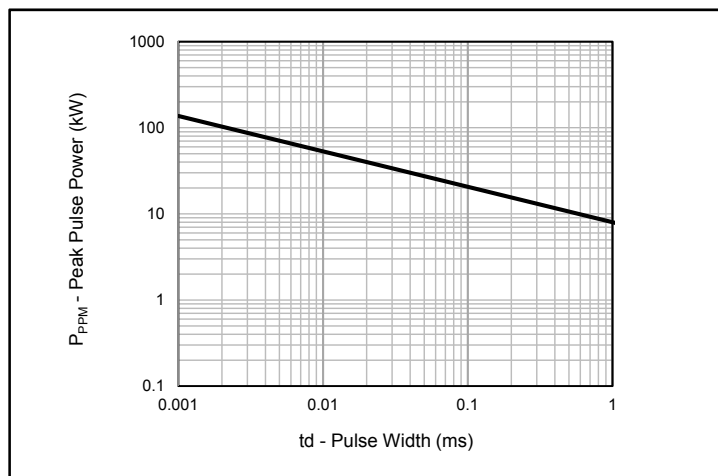


Fig.1 - Peak Pulse Power Rating

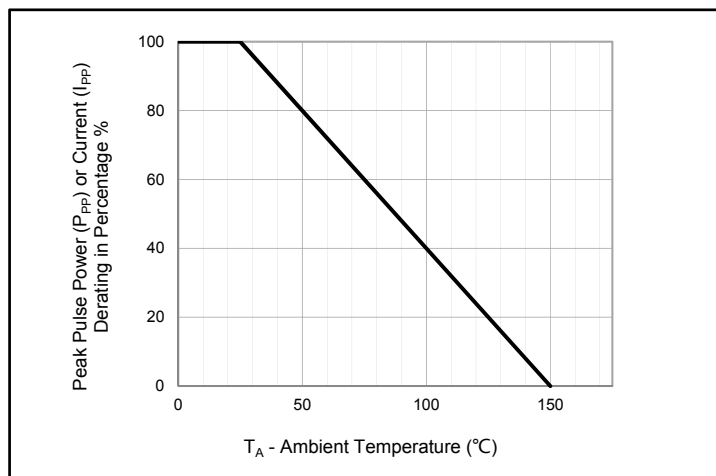


Fig.2 - Pulse Derating Curve

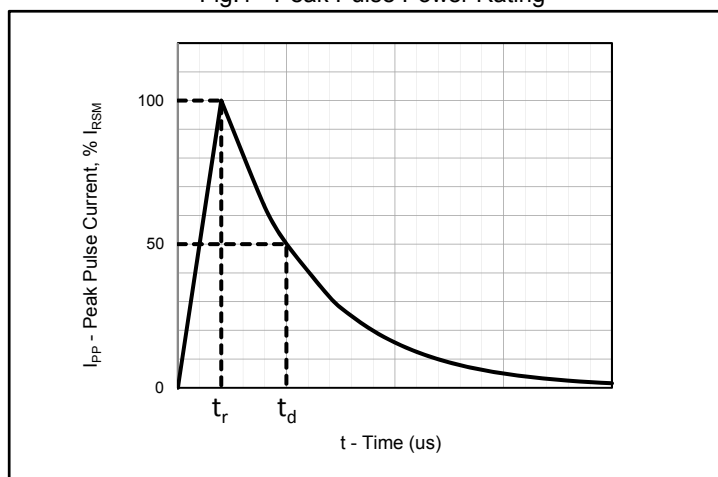


Fig.3 - Pulse Waveform

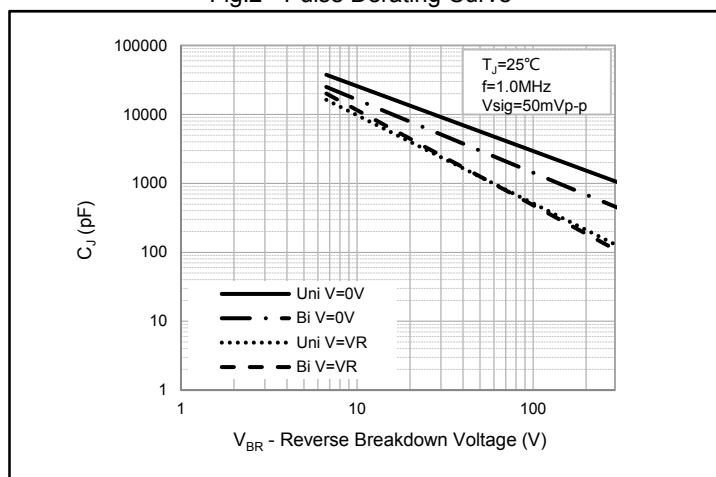


Fig.4 - Typical Junction Capacitance

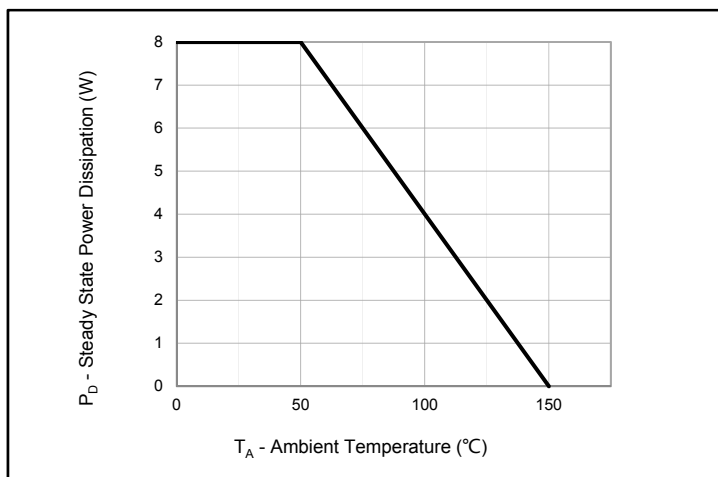


Fig.5 - Steady State Power Dissipation Derating Curve

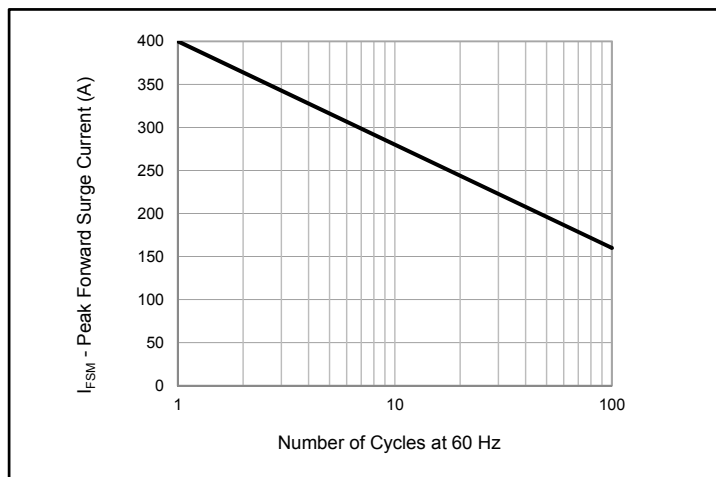


Fig.6 - Maximum Non-Repetitive Peak Forward Surge Current
Uni-Directional Only

Ordering information

Package	Packing Description	Packing Quantity
R-6	braid	300PCS/Box 3000PCS/Carton

Package Dimensions

R-6

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	8.60	9.10	0.340	0.360
B	8.60	9.10	0.340	0.360
C	1.20	1.30	0.048	0.052
D	25.40	-	1.00	-

Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.