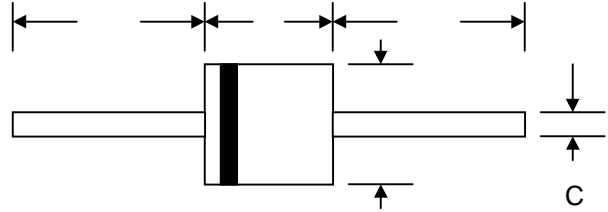


### Features

- 5000W (10/1000µs) Peak Pulse Power
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time : typically less than 1.0 ps from 0 volt to  $V_{BR(min.)}$
- Pb / RoHS Free



### Mechanical Data

- Case : R-6 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 2.1 grams

R-6		
Dim	Min	Max
A	25.4	—
B	8.60	9.10
C	1.20	1.30
D	8.60	9.10
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Rating	Symbol	Value	Unit
Peak Power Dissipation at $T_a = 25^\circ\text{C}$ , $T_p=1\text{ms}$ (Note1)	PPK	Minimum 3000	W
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$ Lead Lengths 0.375", (9.5mm) (Note 2)	$P_D$	5.0	W
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 175	$^\circ\text{C}$

#### Note :

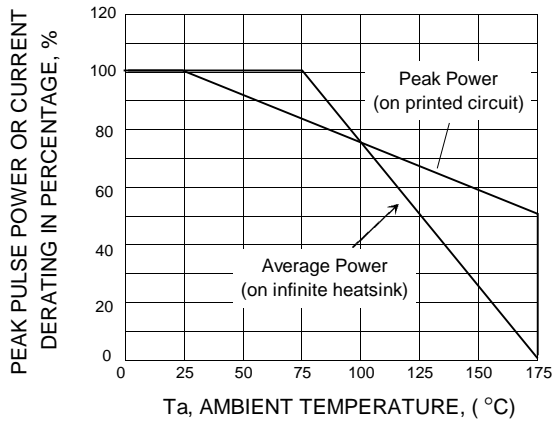
- (1) Non-repetitive Current pulse, per Fig. 5 and derated above  $T_a = 25^\circ\text{C}$  per Fig. 1
- (2) Mounted on Copper Leaf area of  $1.57\text{ in}^2$  ( $40\text{mm}^2$ ).
- (3) 8.3 ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.

Type No.	Breakdown voltage (Note 1)			Max. Leakage current @ $V_{RM}$		Clamping voltage 10/1000 $\mu$ s		$\alpha T$ max (Note 2)	C typ (Note 3)
	$V_{BR}$	@	$I_R$	$I_{RM}$	@ $V_{RM}$	$V_{CL}$	@ $I_{PP}$		
	min (V)	max (V)	(mA)	( $\mu$ A)	(V)	max (V)	(A)	$10^{-4}/^{\circ}C$	(pF)
BZW50-10 A	11.1	13.6	1.0	5.0	10	18.8	266	7.8	24000
BZW50-10CA	11.1	13.6	1.0	5.0	10	18.8	266	7.8	24000
BZW50-12 A	13.3	16.3	1.0	5.0	12	22.0	227	8.4	18500
BZW50-12CA	13.3	16.3	1.0	5.0	12	22.0	227	8.4	18500
BZW50-15 A	16.6	20.4	1.0	5.0	15	26.9	186	8.8	13500
BZW50-15CA	16.6	20.4	1.0	5.0	15	26.9	186	8.8	13500
BZW50-18 A	20.0	24.4	1.0	5.0	18	32.2	155	9.2	1150
BZW50-18CA	20.0	24.4	1.0	5.0	18	32.2	155	9.2	1150
BZW50-22 A	24.4	29.8	1.0	5.0	22	39.4	127	9.6	8500
BZW50-22CA	24.4	29.8	1.0	5.0	22	39.4	127	9.6	8500
BZW50-27 A	30.0	36.6	1.0	5.0	27	48.3	103	9.8	7000
BZW50-27CA	30.0	36.6	1.0	5.0	27	48.3	103	9.8	7000
BZW50-33 A	36.6	44.7	1.0	5.0	33	59.0	85	10	5750
BZW50-33CA	36.6	44.7	1.0	5.0	33	59.0	85	10	5750
BZW50-39 A	43.3	53.0	1.0	5.0	39	69.4	72	10.1	4800
BZW50-39CA	43.3	53.0	1.0	5.0	39	69.4	72	10.1	4800
BZW50-47 A	52.0	63.6	1.0	5.0	47	83.2	60.1	10.3	4100
BZW50-47CA	52.0	63.6	1.0	5.0	47	83.2	60.1	10.3	4100
BZW50-56 A	62.2	76.0	1.0	5.0	56	99.6	50	10.4	3400
BZW50-56CA	62.2	76.0	1.0	5.0	56	99.6	50	10.4	3400
BZW50-68 A	75.6	92.4	1.0	5.0	68	121	41	10.5	3000
BZW50-68CA	75.6	92.4	1.0	5.0	68	121	41	10.5	3000
BZW50-82 A	91.0	111	1.0	5.0	82	145	34	10.6	2600
BZW50-82CA	91.0	111	1.0	5.0	82	145	34	10.6	2600
BZW50-100 A	111	136	1.0	5.0	100	179	28	10.7	2300
BZW50-100 CA	111	136	1.0	5.0	100	179	28	10.7	2300
BZW50-120 A	133	163	1.0	5.0	120	215	23	10.8	1900
BZW50-120 CA	133	163	1.0	5.0	120	215	23	10.8	1900
BZW50-150 A	166	204	1.0	5.0	150	269	19	10.8	1700
BZW50-150 CA	166	204	1.0	5.0	150	269	19	10.8	1700
BZW50-180 A	200	244	1.0	5.0	180	322	16	10.8	1500
BZW50-180 CA	200	244	1.0	5.0	180	322	16	10.8	1500

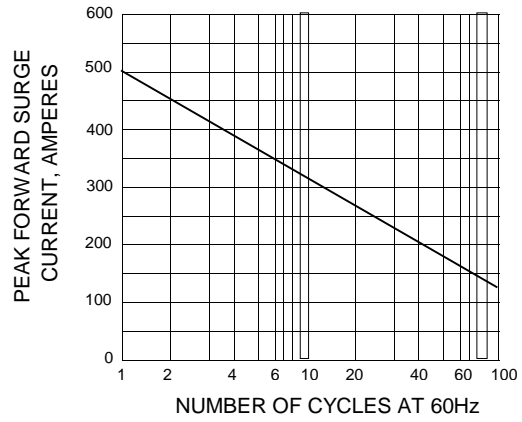
**Notes:**

- (1) Pulse test :  $t_p < 50$  ms.
- (2)  $\Delta V_{BR} = \alpha T * (T_a - 25) * V_{BR} (25^{\circ}C)$
- (3)  $V_R = 0V$ ,  $f = 1MHz$ . For Bidirectional types, capacitance value is divided by 2.

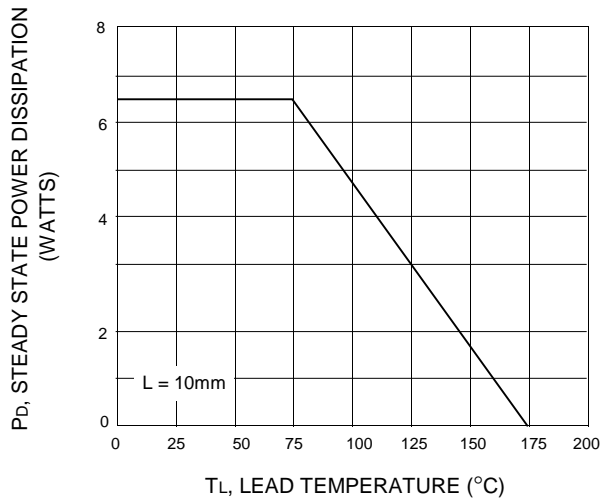
**FIG.1 - PULSE DERATING CURVE**



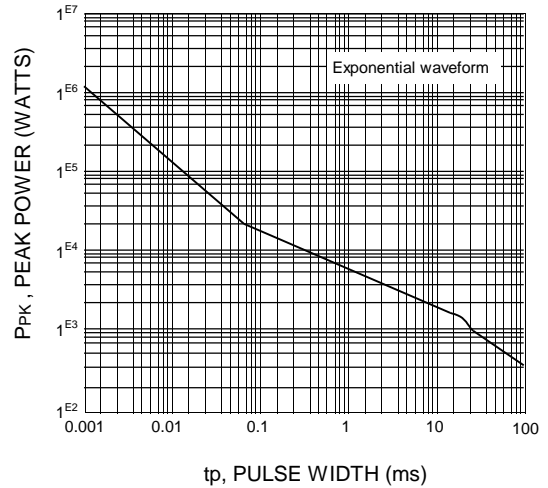
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - STEADY STATE POWER DERATING**



**FIG.4 - PEAK PULSE POWER RATING CURVE**



**FIG.5 - PULSE WAVEFORM**

