

# Zeners/Studs

## BZY91 Series

### FEATURES

- Voltage range 7.5 - 75 Volts
- 5000 Watt peak pulse power
- 100 Watt steady state @ 25°C
- 75 Watt steady state @ 65°C
- Glass passivated junction
- 5000 Watt surge capability at 1 ms
- Typically IR less than 1  $\mu$ A above 10V
- Excellent clamping capability
- Stud cathode & stud anode
- Operating temperature -55°C to +175°C
- 100% tested

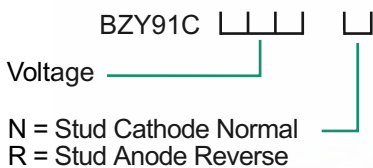
### MECHANICAL CHARACTERISTICS

- Case: Hermetically sealed DO5 outline
- Finish: All external surfaces are corrosion resistant and terminal solderable
- Polarity: Indicated by direction of zener symbol
- Weight: 14 grammes excluding mounting kit (approx)
- Torque Setting 30inch/lb

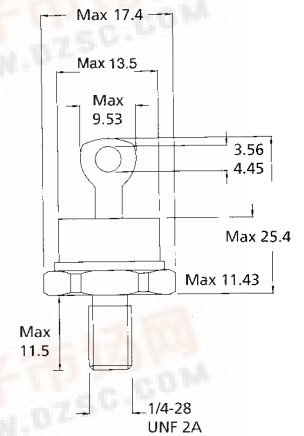
### ELECTRICAL DATA

- Forward voltage Vf 1.5V max @ If  $\leq$  10A 300 $\mu$ S square wave pulse
- Vz measured with pulse  $\leq$  100 $\mu$ S and duty cycle  $\leq$  0.001
- Rz determined with DC plus 10% superimposed AC @ 1KHz

### ORDERING INFORMATION



AVAILABLE IN THE FOLLOWING CONFIGURATIONS



All dimensions in mm

## Zeners/Studs

### BZY91 Series

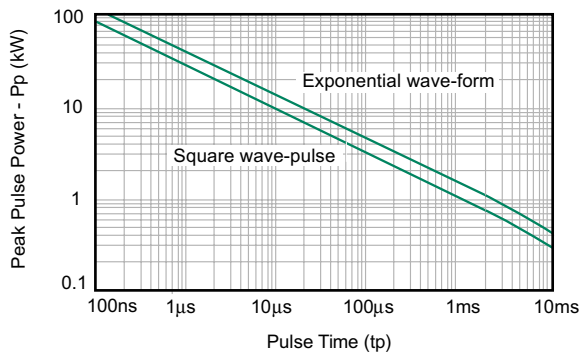


Figure 1. Non-repetitive peak pulse power rating curve

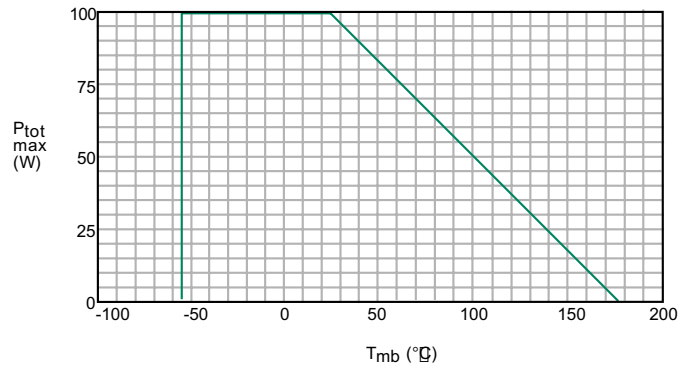


Figure 2. Maximum total dissipation plotted against mounting base temp

#### ELECTRICAL SPECIFICATION @ Tamb 25°C

Stud Cathode Part Number	Stud Anode Part Number	Zener Voltage Vz (Volts) @ Iz		Iz (A)	Zener Resistance Rz (Ω) @ Iz Typ	Maximum Reverse Leakage IR @ VR		
		MIN	MAX			Max	(mA)	(Volts)
BZY91C7V5	BZY91C7V5R	7.0	7.9	5.0	0.04	0.2	5.0	5.1
BZY91C8V2	BZY91C8V2R	7.7	8.7	5.0	0.06	0.3	5.0	5.6
BZY91C9V1	BZY91C9V1R	8.5	9.6	2.0	0.08	0.4	5.0	6.2
BZY91C10*	BZY91C10R	9.4	10.6	2.0	0.08	0.4	1.0	6.8
BZY91C11	BZY91C11R	10.4	11.6	2.0	0.08	0.4	1.0	7.5
BZY91C12*	BZY91C12R	11.4	12.7	2.0	0.10	0.5	1.0	8.2
BZY91C13	BZY91C13R	12.4	14.1	2.0	0.10	0.5	1.0	9.1
BZY91C15*	BZY91C15R*	13.8	15.6	2.0	0.12	0.6	1.0	10.0
BZY91C16	BZY91C16R	15.3	17.1	2.0	0.12	0.6	1.0	11.0
BZY91C18	BZY91C18R	16.8	19.1	2.0	0.14	0.7	1.0	12.0
BZY91C20*	BZY91C20R	18.8	21.2	1.0	0.16	0.8	1.0	13.0
BZY91C22	BZY91C22R*	20.8	23.3	1.0	0.16	0.8	1.0	15.0
BZY91C24*	BZY91C24R	22.7	25.9	1.0	0.18	0.9	1.0	16.0
BZY91C27	BZY91C27R*	25.1	28.9	1.0	0.20	1.0	1.0	18.0
BZY91C30*	BZY91C30R	28.0	32.0	1.0	0.22	1.1	1.0	20.0
BZY91C33*	BZY91C33R	31.0	35.0	1.0	0.24	1.2	1.0	22.0
BZY91C36	BZY91C36R	34.0	38.0	1.0	0.26	1.3	1.0	24.0
BZY91C39*	BZY91C39R	37.0	41.0	0.5	0.28	1.4	1.0	27.0
BZY91C43*	BZY91C43R	40.0	46.0	0.5	0.30	1.5	1.0	30.0
BZY91C47	BZY91C47R	44.0	50.0	0.5	0.34	1.7	1.0	33.0
BZY91C51	BZY91C51R	48.0	54.0	0.5	0.36	1.8	1.0	36.0
BZY91C56*	BZY91C56R	52.0	60.0	0.5	0.4	2.0	1.0	39.0
BZY91C62	BZY91C62R*	58.0	66.0	0.5	0.44	2.2	1.0	43.0
BZY91C68	BZY91C68R	64.0	72.0	0.5	0.48	2.4	1.0	47.0
BZY91C75*	BZY91C75R	70.0	79.0	0.5	0.51	2.6	1.0	51.0

\* Preferred voltages.