

## 75W Zener Diodes

### Features

- Voltage Range 7.5 – 75 Volts
- Glass passivated junction
- 75 Watt steady state @ 65°C
- 5000 Watt peak pulse power
- Operating temperature -55°C to +175°C
- Good clamping ability
- Available in Normal and Reverse polarity
- Metric and UNF thread type

### Mechanical Characteristics

- Hermetically sealed DO-5 outline
- Polarity: Indicated by direction of Zener symbol
- External surfaces corrosion resistant & terminal Solderable
- Weight: 16 grams
- Torque Setting: 3.5 Nm

### Electrical Data

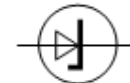
- Forward Voltage,  $V_F = 1.5V$  max.  
(at  $I_F \leq 10A$ , 300 $\mu s$  square wave pulse)
- $V_Z$  measured with pulse  $\leq 100\mu s$   
Duty cycle  $\leq 0.001$
- $R_Z$  determined with DC plus 10%  
superimposed AC @ 1KHZ



DO-203AB (DO-5)



STUD CATHODE NORMAL

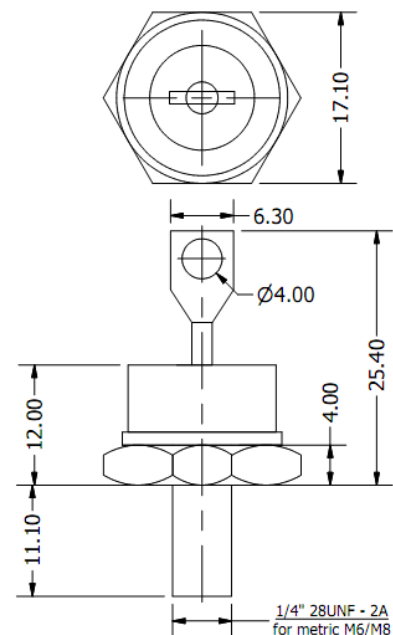


STUD ANODE REVERSE

### Ordering Table

BZY	91C	-	R
1	2	3	4

- 1 – Zener Diode
- 2 – Wattage = 75W
- 3 – Zener Voltage
- 4 – Polarity:
  - > None = Stud Cathode Normal
  - > R = Stud Anode Reverse



ALL DIMENSIONS IN MM

## 75W Zener Diodes

Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise specified)								
Stud Cathode Part number	Stud Anode Part number	Zener Voltage $V_Z @ I_Z$ (V)		$I_Z$ (A)	Zener Resistance $R_Z @ I_Z$ ( $\Omega$ )		Maximum Reverse Leakage Current $I_R @ V_R$	
		MIN	MAX		Typ.	Max	(mA)	(V)
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
BZY91C16	BZY91C16R	15.3	17.1	2.0	0.12	0.6	1.0	11
BZY91C18	BZY91C18R	16.8	19.1	1.0	0.14	0.7	1.0	12
BZY91C20	BZY91C20R	18.8	21.2	1.0	0.16	0.8	1.0	13
BZY91C22	BZY91C22R	20.8	23.3	1.0	0.16	0.8	1.0	15
BZY91C24	BZY91C24R	22.7	25.9	1.0	0.18	0.9	1.0	16
BZY91C27	BZY91C27R	25.1	28.9	1.0	0.20	1.0	1.0	18
BZY91C30	BZY91C30R	28.0	32.0	1.0	0.22	1.1	1.0	20
BZY91C33	BZY91C33R	31.0	35.0	1.0	0.24	1.2	1.0	22
BZY91C36	BZY91C36R	34.0	38.0	1.0	0.26	1.3	1.0	24
BZY91C39	BZY91C39R	37.0	41.0	0.5	0.28	1.4	1.0	27
BZY91C43	BZY91C43R	40.0	46.0	0.5	0.30	1.5	1.0	30
BZY91C47	BZY91C47R	44.0	50.0	0.5	0.34	1.7	1.0	33
BZY91C51	BZY91C51R	48.0	54.0	0.5	0.36	1.8	1.0	36
BZY91C56	BZY91C56R	52.0	60.0	0.5	0.40	2.0	1.0	39
BZY91C62	BZY91C62R	58.0	66.0	0.5	0.44	2.2	1.0	43
BZY91C68	BZY91C68R	64.0	72.0	0.5	0.48	2.4	1.0	47
BZY91C75	BZY91C75R	70.0	79.0	0.5	0.51	2.6	1.0	51

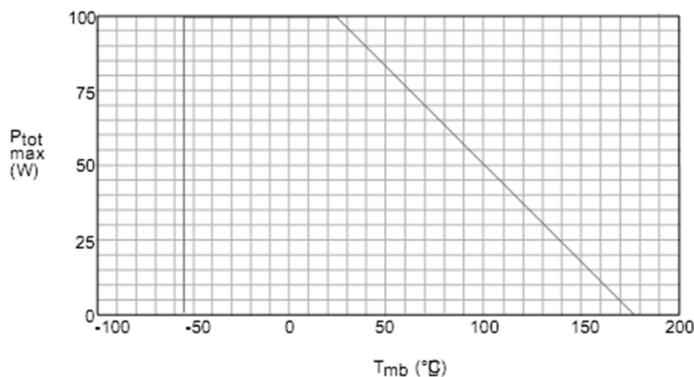


Figure 1. Maximum total dissipation plotted against mounting base temp

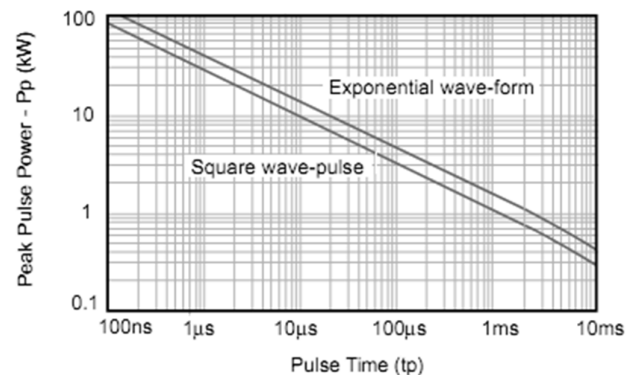


Figure 2. Non-repetitive peak pulse power rating curve