

BZY93 Series

FEATURES

- Voltage Range 7.5 -75 Volts
- 1500 Watt Peak Pulse Power
- 20 Watt Steady State @ 75°C
- 15 Watt Steady State @ 100°C
- Glass passivated junction
- 1500 Watt surge capability at 1 ms
- Typically IR less than 5 μ A above 10V
- Excellent clamping capability
- Stud cathode & stud anode
- Operating temperature -55°C to +175°C
- 100% tested



AVAILABLE IN THE FOLLOWING CONFIGURATIONS

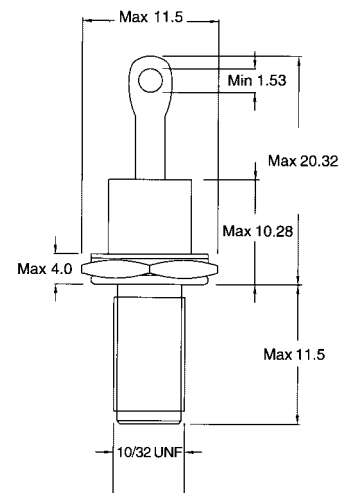
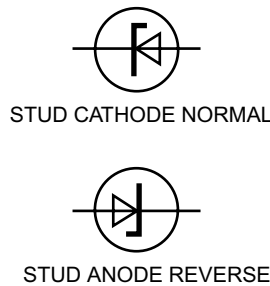
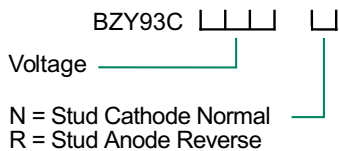
MECHANICAL CHARACTERISTICS

- Case: Hermetically sealed DO-4 outline
- Finish: All external surfaces are corrosion resistant and terminal solderable
- Polarity: Indicated by direction of zener symbol
- Weight: 4.2 grammes excluding mounting kit (approx)
- Torque setting 13inch/lb

ELECTRICAL DATA

- Forward voltage V_F 1.5V max @ $I_F \leq 5A$ 300 μ S square wave pulse
- V_z measured with pulse $\leq 100\mu$ S and duty cycle ≤ 0.001
- R_z determined with DC plus 10% superimposed AC @ 1KHz

ORDERING INFORMATION



All dimensions in mm

Zeners/Studs

BZY93 Series

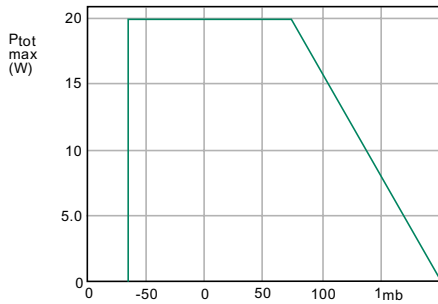


Figure 1. Maximum total dissipation plotted against mounting base temp

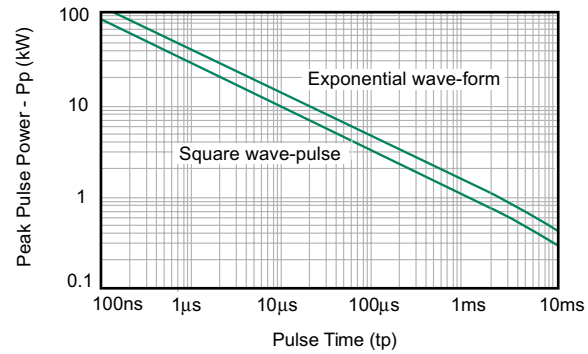


Figure 2. Non-repetitive peak pulse power rating curve

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 | | Maximum Reverse Leakage IR @ VR | |
|--------------------------|------------------------|-------------------------------|------|--------|------------------------------|------|---------------------------------|---------|
| | | MIN | MAX | | Typ | Max | (mA) | (Volts) |
| BZY93C7V5* | BZY93C7V5R | 7.0 | 7.9 | 2.0 | 0.04 | 0.3 | 0.10 | 5.1 |
| BZY93C8V2 | BZY93C8V2R | 7.7 | 8.7 | 2.0 | 0.05 | 0.3 | 0.10 | 5.6 |
| BZY93C9V1* | BZY93C9V1R | 8.5 | 9.6 | 1.0 | 0.07 | 0.5 | 0.05 | 6.2 |
| BZY93C10 | BZY93C10R | 9.4 | 10.6 | 1.0 | 0.09 | 0.5 | 0.05 | 6.8 |
| BZY93C11 | BZY93C11R | 10.4 | 11.6 | 1.0 | 0.08 | 1.0 | 0.05 | 7.5 |
| BZY93C12* | BZY93C12R* | 11.4 | 12.7 | 1.0 | 0.08 | 1.0 | 0.05 | 8.2 |
| BZY93C13* | BZY93C13R* | 12.4 | 14.1 | 1.0 | 0.08 | 1.0 | 0.05 | 9.1 |
| BZY93C15 | BZY93C15R* | 13.8 | 15.6 | 1.0 | 0.10 | 1.2 | 0.05 | 10 |
| BZY93C16 | BZY93C16R | 15.3 | 17.1 | 0.5 | 0.18 | 1.2 | 0.05 | 11 |
| BZY93C18* | BZY93C18R* | 16.8 | 19.1 | 0.5 | 0.20 | 1.5 | 0.05 | 12 |
| BZY93C20 | BZY93C20R | 18.8 | 21.2 | 0.5 | 0.20 | 1.5 | 0.05 | 13 |
| BZY93C22 | BZY93C22R | 20.8 | 23.3 | 0.5 | 0.21 | 1.8 | 0.05 | 15 |
| BZY93C24 | BZY93C24R | 22.7 | 25.9 | 0.5 | 0.22 | 2.0 | 0.05 | 16 |
| BZY93C27 | BZY93C27R* | 25.1 | 28.9 | 0.5 | 0.25 | 2.0 | 0.05 | 18 |
| BZY93C30* | BZY93C30R | 28.0 | 32.0 | 0.5 | 0.30 | 2.5 | 0.05 | 20 |
| BZY93C33 | BZY93C33R | 31.0 | 35.0 | 0.5 | 0.75 | 4.0 | 0.05 | 22 |
| BZY93C36 | BZY93C36R* | 34.0 | 38.0 | 0.2 | 0.85 | 5.0 | 0.05 | 24 |
| BZY93C39 | BZY93C39R | 37.0 | 41.0 | 0.2 | 0.90 | 6.5 | 0.05 | 27 |
| BZY93C43 | BZY93C43R | 40.0 | 46.0 | 0.2 | 1.00 | 7.0 | 0.05 | 30 |
| BZY93C47 | BZY93C47R | 44.0 | 50.0 | 0.2 | 1.00 | 7.5 | 0.05 | 33 |
| BZY93C51 | BZY93C51R | 48.0 | 54.0 | 0.2 | 1.20 | 8.0 | 0.05 | 36 |
| BZY93C56* | BZY93C56R | 52.0 | 60.0 | 0.2 | 1.30 | 9.0 | 0.05 | 39 |
| BZY93C62 | BZY93C62R | 58.0 | 66.0 | 0.2 | 1.50 | 10.0 | 0.05 | 43 |
| BZY93C68 | BZY93C68R* | 64.0 | 72.0 | 0.2 | 1.80 | 11.0 | 0.05 | 47 |
| BZY93C75* | BZY93C75R | 70.0 | 79.0 | 0.2 | 2.00 | 15.0 | 0.05 | 51 |

* Preferred voltages.