## SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATA SHEET 820, REV. -

# **Load Dump Protector**

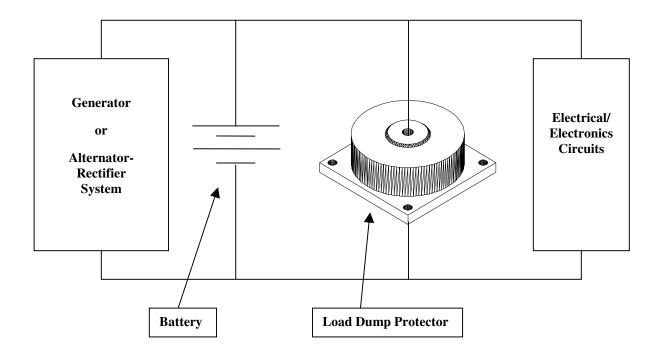
This rugged, hermetic module is capable of protecting battery powered electrical systems from high energy transients and 'over-voltage' power surges resulting from battery disconnect, alternator/generator load dump situations, in either direction.

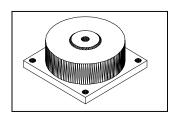
### Features:

- Internally hermetic
- Bi-Polar
- Withstands up to 100 Amps, 50ms pulse
- Maximum clamping voltage < 50 Volts
- -55°C to 150°C junction operating range

### **Applications:**

• Any charging system that includes a battery, alternator-rectifier/generator, and electrical/electronics circuits that require protection against power surges.





#### **Operating Conditions:**

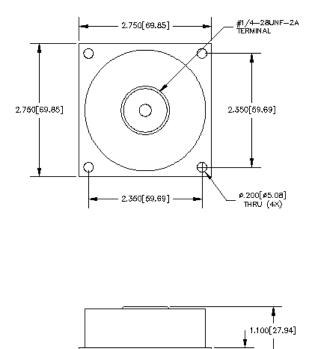
- $V_r = \pm 28$  Vdc,  $I_r @ V_r < 10 \mu A @ 25 °C$
- V<sub>Z</sub> Minimum: 35 Vdc @ 25 ℃ @ 10mA
- V<sub>Z</sub> Maximum: 39 Vdc @ 25 ℃ @ 10mA
- Operating Temperature: -55 ℃ to 150 ℃
- T<sub>C</sub> (V<sub>Z</sub>) + 0.1% / °C

#### **Reverse Surge and Clamp Protection:**

- 100A, 50ms pulse decay to 0 @ 150ms
- $\bullet$  Clamping limit  $V_C \leq 50$  Volts in either direction
- Maximum dc power dissipation: 200 Watts @ T<sub>C</sub> = 25 ℃

#### **Construction:**

• Consists of 10 discrete hermetic sealed large area bipolar silicon devices, plus nickelplated copper heat sink/base plate.



#### Mechanical Dimensions: In inches / mm

.250[6.35]