



## BLOCK TYPE AVALANCHE AUTOMOTIVE RECTIFIER

BA50Z

AVALANCHE VOLTAGE 24 to 32 Volts

CURRENT 50 Amperes

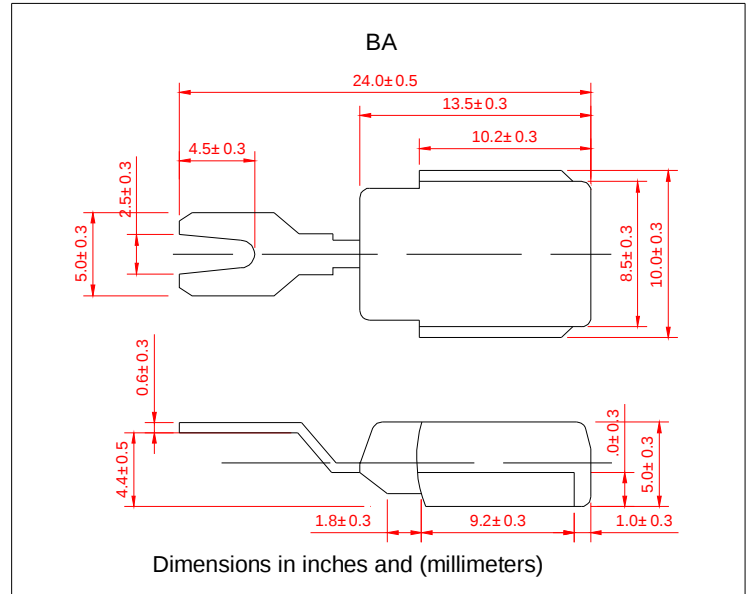
### Technical Specifecation:

#### Features:

- High power capability
- Economical
- Avalanche Voltage: 24V to 32V
- Glass passivated chip

### MECHANICAL DATA

- Copper cup with transfer molded plastic
- Epoxy: UL94-0 rate flame ratardant
- Polarity: BA50-P lead-P  
BA50-N lead-N
- Technology vacuum soldered
- Lead: Plated slug, solderable per MIL-STD-202E Method 208C
- Weight: 0.094 ounce 2.65 Grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

| BA50Z-P/BA50Z-N                                                            |                |             |         |      |       |
|----------------------------------------------------------------------------|----------------|-------------|---------|------|-------|
| Electrical Characteristics @ 25°C                                          | SYMBOLS        | MIN         | NOMINAL | MAX  | UNITS |
| Peak Repetitive Reverse Voltage                                            | $V_{RRM}$      |             | 20      |      | Volts |
| Working Peak Reverse Voltage                                               | $V_{RRM}$      |             | 20      |      |       |
| DC Blocking Voltage                                                        | $V_{DC}$       |             | 20      |      |       |
| Average Rectified Forward Current ( $T_c=125^\circ\text{C}$ )              | $I_o$          |             | 50      |      | Amps  |
| Repetitive Peak Reverse Surge Current<br>$T_c=10\text{msec}$ Dury Cycle<1% | $I_{RSM}$      |             | 50      |      | Amps  |
| Breakdown Voltage ( $V_{br@ir=100\text{mA}}$ , $T_c=25^\circ\text{C}$ )    | $V_{br1}$      | 24          | 25-27   | 32   | Volts |
| $I_r=90\text{Amps}$ , $T_c=150^\circ\text{C}$ , $PW=80\text{usec}$         | $V_{br2}$      |             |         | 40   |       |
| Forward Voltage Drop @ $I_f=100\text{Amps}$ < 300usec                      | $V_F$          |             | 1.05    | 1.08 | Volts |
| Peak Forward Surge Current                                                 | $I_{FSM}$      |             | 600     |      | Amps  |
| Reverse Leakage ( $V_R=17\text{Vdc}$ ) $T_A=25^\circ\text{C}$              | $I_R$          |             | 1.0     | 2.0  | uAmps |
| Operating and Storage Junction Temperature Range                           | $T_J, T_{STG}$ | -65 to +175 |         |      | °C    |

**Notes:** 1. Enough heatsink must be considered in application.

