



BLOCK TYPE AVALANCHE AUTOMOTIVE RECTIFIER

BA40Z

AVALANCHE VOLTAGE 24 to 32 Volts

CURRENT 40 Amperes

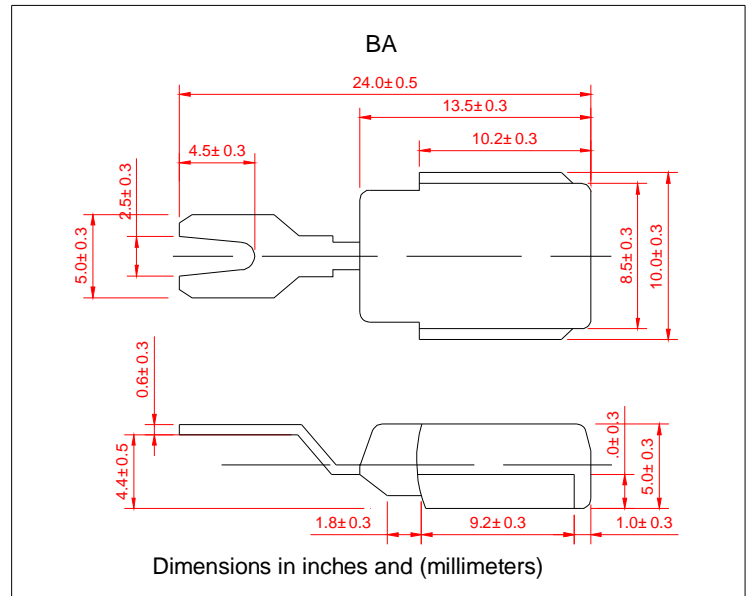
Technical Specification:

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 retardant
- Polarity: BA40-P lead-P
BA40-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%

| | | BA40Z-P/BA40Z-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 | | 40 | | Amps |
| Repetitive Peak Reverse Surge Current $T_c=10\text{msec}$ Duty Cycle < 1% | I_{RSM} | | 40 | | Amps |
| Breakdown Voltage ($V_{br@I_r=100\text{mA}}$, $T_c=25^\circ\text{C}$) | 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 | Volts |
| Forward Voltage Drop @ $I_f=100\text{Amps}$ < 300usec | V_F | | 1.05 | 1.10 | Volts |
| Peak Forward Surge Current | I_{FSM} | | 500 | | 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.

