# WEITRON

# BAT60B

## Surface Mount Schottky Barrier Diode

Lead(Pb)-Free

**SCHOTTKY DIODE**
**3.0AMPERES**
**10VOLTS**

**Features:**

* High Current Rectifier Schottky Diode with Low VF drop
* Low Voltage, Low inductance
* For Power Supply
* For detection and step-up-conversion

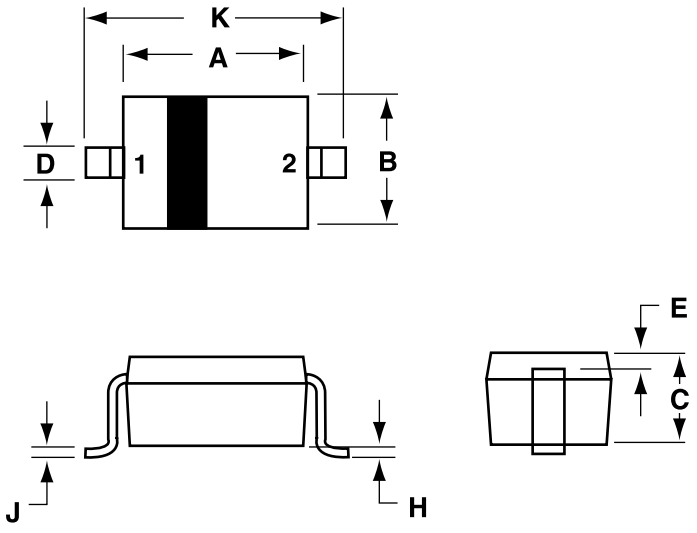
**SOD-323**

**Mechanical Data:**

* Case: SOD-323, Plastic
* Case Material-UL Flammability Rating Classification 94V-0
* Leads: Solderable per MIL-STD-202, Method 208
* Polarity: Cathode Band
* Weight: 0.004 grams(approx.)

## SOD-323 Outline Demensions

Unit:mm




| Dim | MILLMETERS | |
|---|---|---|
| | Min | Max |
| A | 1.60 | 1.80 |
| B | 1.15 | 1.35 |
| C | 0.80 | 1.00 |
| D | 0.25 | 0.40 |
| E | 0.15 REF | |
| H | 0.00 | 0.10 |
| J | 0.089 | 0.177 |
| K | 2.30 | 2.70 |

PIN 1.CATHODE
2.ANODE

## Maximum Ratings ($T_a$=25˚C Unless otherwise noted)

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Non-Repetitive Peak reverse Voltage | $V_{RRM}$ | 10 | V |
| DC reverse voltage | $V_R$ | 10 | V |
| Forward Current | $I_F$ | 3.0 | A |
| Forward Surge Current @tp=10ms | $I_{FSM}$ | 5.0 | A |
| Power Dissipation $T_a$=25˚C | $P_D$ | 250 | mW |
| Junction temperature Range | $T_J$ | 150 | ˚C |
| Storage temperature Range | $T_{STG}$ | -55 to +150 | ˚C |

## Electrical Characteristics ($T_A$=25˚C Unless otherwise noted)

| Characteristic | Symbol | Min | Max | Unit |
|---|---|---|---|---|
| Forward Voltage<br>$I_F$=10mA<br>$I_F$=100mA<br>$I_F$=500mA<br>$I_F$=1000mA | $V_F$ | <br>-<br>-<br>-<br>- | <br>0.30<br>0.38<br>0.50<br>0.60 | V |
| Reverse Current<br>$V_R$=5.0V<br>$V_R$=8.0V | $I_R$ | <br>-<br>- | <br>15<br>25 | μA |
| Total Capacitance<br>$V_R$=5.0V, f=1.0MHz | $C_T$ | - | 30 | PF |

Note:

1. Parts Mounted on FR-4 PC Board with recommended pad layout.

## Device Marking

| Item | Marking | Eqivalent Circuit diagram |
|---|---|---|
| BAT60B | W5 |  |

**Electrical Characteristic curves(Ta=25°C)**

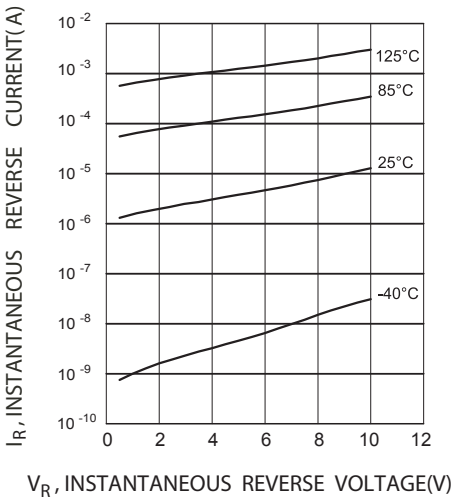



**FIG. 1 Typical Reverse Characteristics**

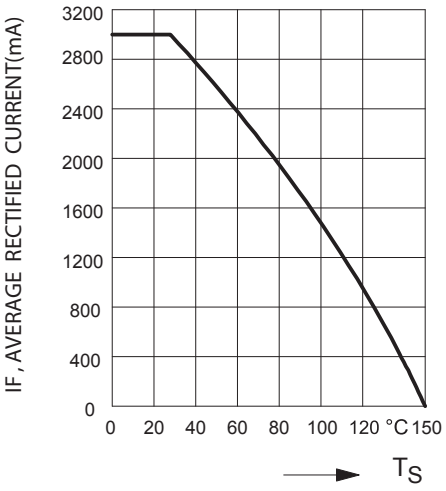



**FIG. 2 Forward Current Derating Curve**

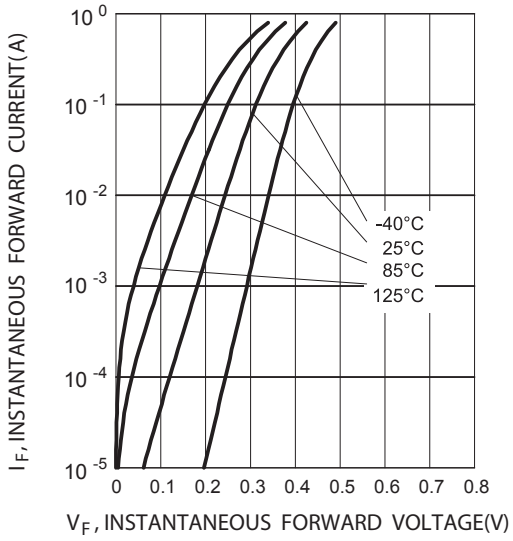



**FIG. 3 Typical Forward Characteristics**

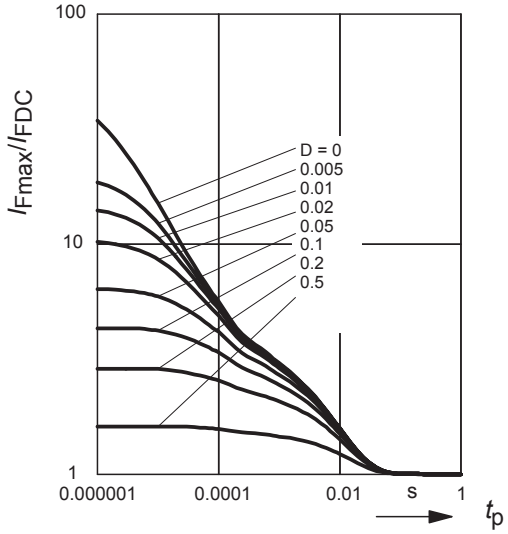



**FIG. 4 Permissible Pulse Load $I_{Fmax}/I_{FDC}$=f(tp)**

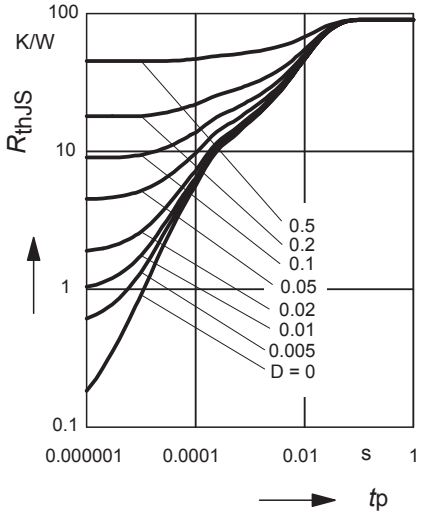



**FIG. 5 Permissible Pulse Load $R_{thJS}$=f(tp)**