

# B0540WS

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 40 Volt **CURRENT** 0.5 Ampere

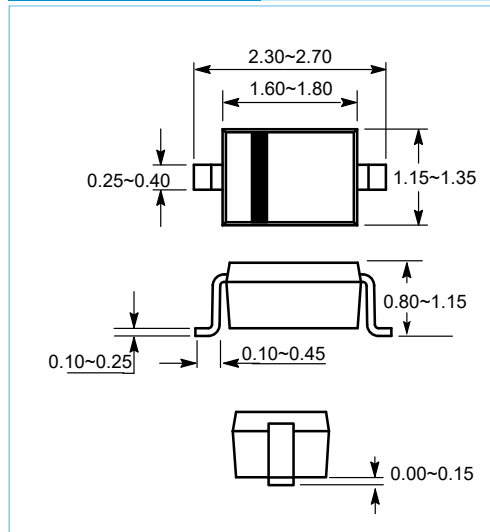
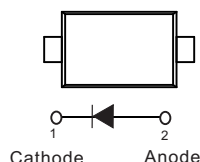
**SOD-323** Unit:mm

### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version
- Lead free in compliance with EU RoHS
- Marking code: SF

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS( $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

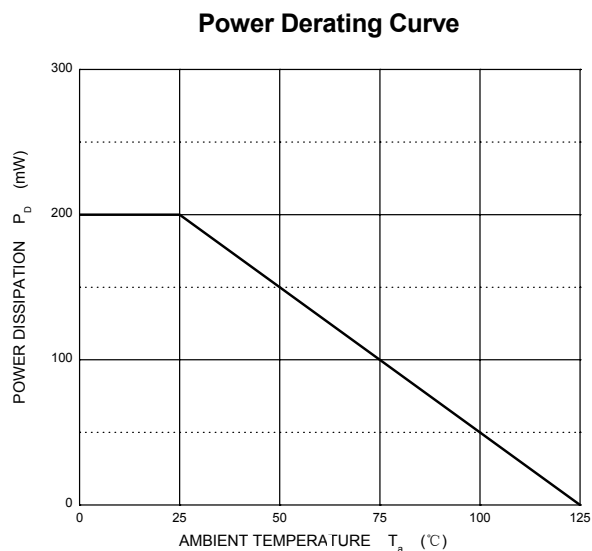
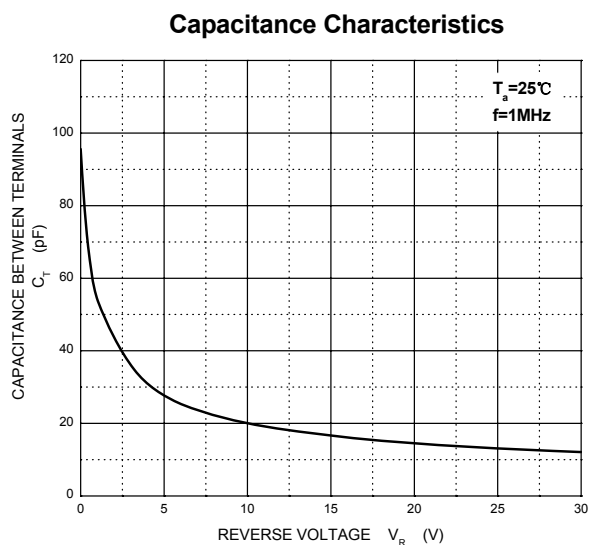
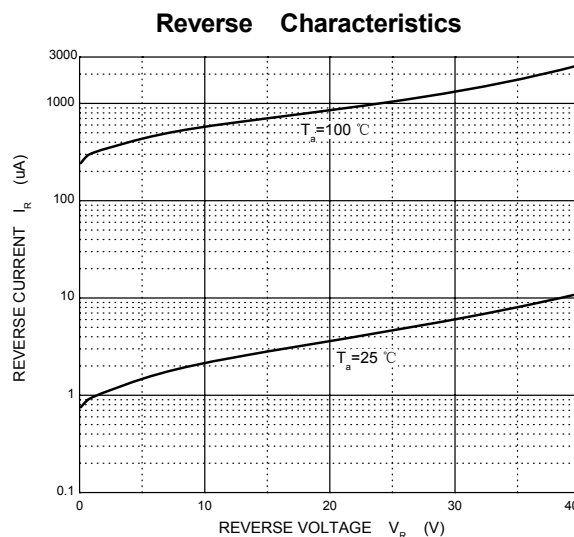
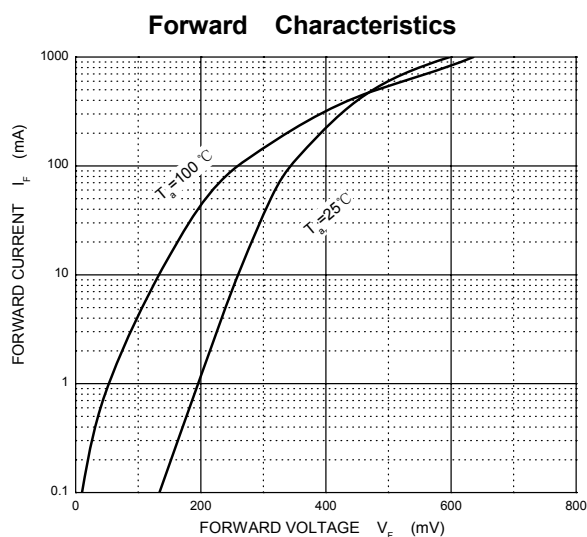
| Parameter                                                    | Symbol          | Value       | Units              |
|--------------------------------------------------------------|-----------------|-------------|--------------------|
| Non-repetitive peak reverse voltage                          | $V_{RM}$        | 40          | V                  |
| Forward continuous current                                   | $I_{FM}$        | 0.5         | A                  |
| Non-repetitive Peak Forward surge current @ $t=8.3\text{ms}$ | $I_{FSM}$       | 5.5         | A                  |
| Power dissipation                                            | $P_D$           | 200         | mW                 |
| Thermal resistance junction to ambient                       | $R_{\theta JA}$ | 500         | K/W                |
| Junction Temperature                                         | $T_J$           | 125         | $^{\circ}\text{C}$ |
| Storage Temperature                                          | $T_{STG}$       | -55 to +150 | $^{\circ}\text{C}$ |

### ELECTRICAL CHARACTERISTICS( $T_A = 25^{\circ}\text{C}$ unless otherwise noted)

| Characteristic            | Symbol      | Conditions                                             | Min | Typ | Max          | Unit          |
|---------------------------|-------------|--------------------------------------------------------|-----|-----|--------------|---------------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | ( $I_R = 20 \mu\text{A}$ )                             | 40  |     |              | V             |
| Reverse Leakage           | $I_R$       | ( $V_R = 20 \text{ V}$ )<br>( $V_R = 40 \text{ V}$ )   |     |     | 10<br>20     | $\mu\text{A}$ |
| Forward Voltage           | $V_F$       | ( $I_F = 0.5 \text{ A}$ )<br>( $I_F = 1.0 \text{ A}$ ) |     |     | 0.51<br>0.62 | V             |
| Total Capacitance         | $C_T$       | ( $V_R = 1.0 \text{ V}$ , $f = 1.0 \text{ MHz}$ )      |     |     | 170          | pF            |

# BAT54WS

## Typical Characteristics

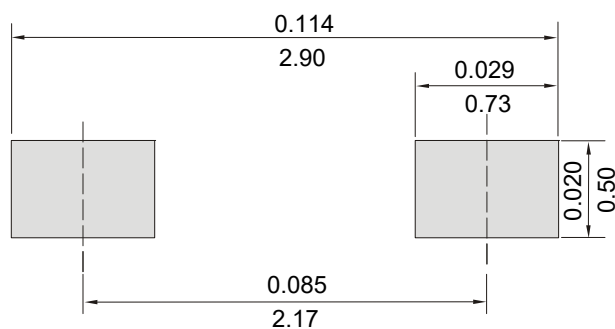


## B0540WS

### MOUNTING PAD LAYOUT

#### SOD-323

Unit:Inch(mm)



### ORDER INFORMATION

- Packing information

| Part Number | Case    | Reel Size | QUANTITY |
|-------------|---------|-----------|----------|
| B0540WS     | SOD-323 | 7 Inch    | 3000     |