



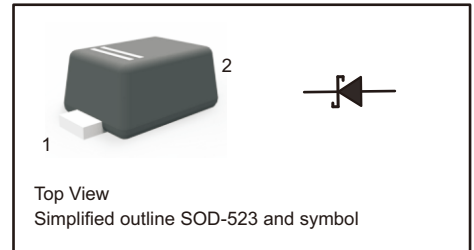
## SCHOTTKY BARRIER RECTIFIERS

### FEATURES

- Low Forward Voltage Drop
- Surface Mount Package Ideally Suited for Automated Insertion
- Lead, Halogen and Antimony Free, RoHS Compliant "Green" Device

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

| Parameter                                           | Symbol    | Value      | Unit |
|-----------------------------------------------------|-----------|------------|------|
| Reverse Voltage                                     | $V_R$     | 30         | V    |
| Forward Current                                     | $I_F$     | 200        | mA   |
| Non-Reptitive Peak Forward Surge Current at t=8.3ms | $I_{FSM}$ | 0.6        | A    |
| Power Dissipation                                   | $P_D$     | 200        | mW   |
| Operating Temperature Range                         | $T_J$     | -55 to 125 | °C   |
| Storage Temperature Range                           | $T_{stg}$ | -55 to 150 | °C   |

### ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| Parameter               | Symbol   | Test conditions  | Min | Typ | Max  | Unit    |
|-------------------------|----------|------------------|-----|-----|------|---------|
| Breakdown Voltage       | $V_{BR}$ | $I_R=10\mu A$    | 30  |     |      | V       |
| Forward Voltage         | $V_{F1}$ | $I_F=0.1mA$      |     |     | 0.24 | V       |
|                         | $V_{F2}$ | $I_F=1mA$        |     |     | 0.32 |         |
|                         | $V_{F3}$ | $I_F=10mA$       |     |     | 0.4  |         |
|                         | $V_{F4}$ | $I_F=30mA$       |     |     | 0.5  |         |
|                         | $V_{F5}$ | $I_F=100mA$      |     |     | 0.8  |         |
| Reverse Leakage Current | $I_R$    | $V_R=25V$        |     |     | 2    | $\mu A$ |
| Junction Capacitance    | $C_j$    | $V_R=4V, f=1MHz$ |     | 8   |      | pF      |



## Typical Performance Characteristics

Fig.1 Power Derating Curve

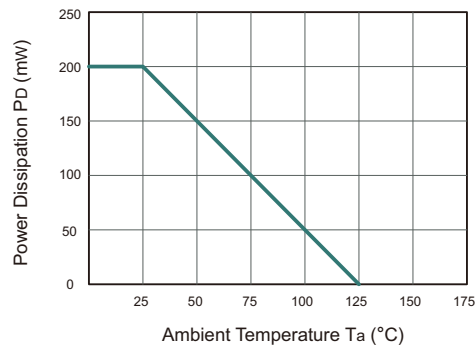


Fig.2 Typical Instantaneous Reverse Characteristics

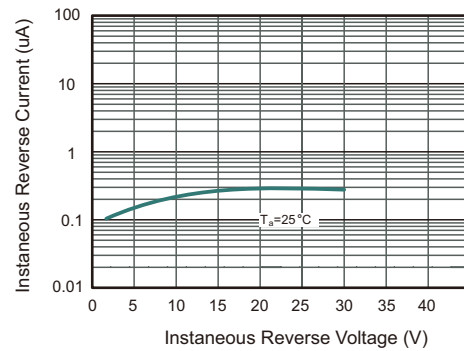
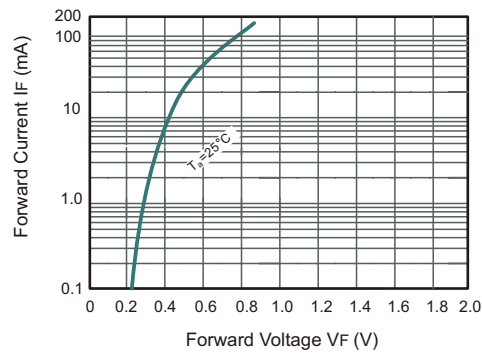


Fig.3 Typical Forward Characteristic

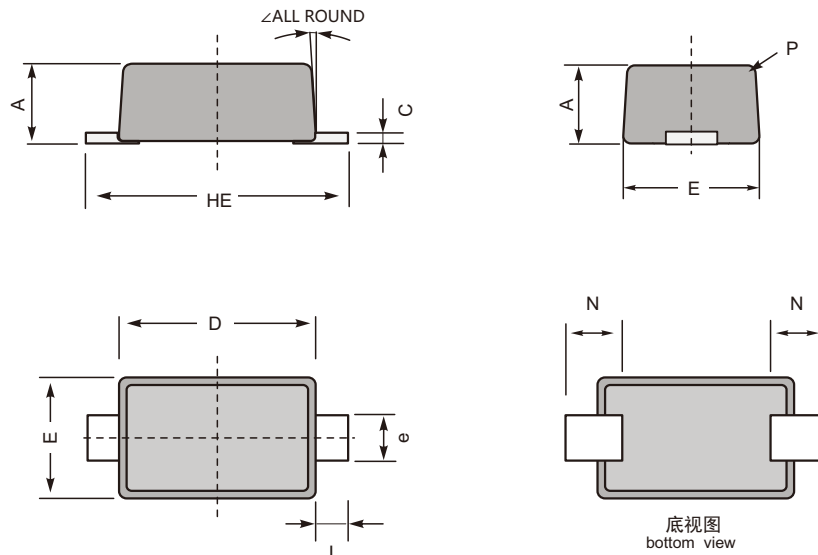




## PACKAGE OUTLINE

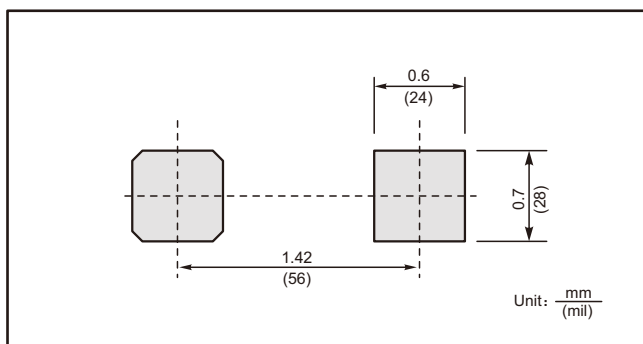
Plastic surface mounted package; 2 leads

SOD-523



| UNIT |     | A    | e    | C    | D    | E    | HE   | N    | L   | P         | ∠       |
|------|-----|------|------|------|------|------|------|------|-----|-----------|---------|
| mm   | max | 0.77 | 0.35 | 0.15 | 1.30 | 0.99 | 1.70 | 0.35 | 0.2 | R0.1      | 10° ±1° |
|      | min | 0.51 | 0.25 | 0.08 | 1.10 | 0.75 | 1.50 | ref  | ref | ALL ROUND |         |
| mil  | max | 30   | 14   | 6    | 51   | 39   | 67   | 14   | 8.0 | R4.0      |         |
|      | min | 20   | 10   | 3    | 43   | 30   | 59   | ref  | ref | ALL ROUND |         |

## The recommended mounting pad size



## Marking

| Type number | Marking code |
|-------------|--------------|
| BAT54WT     | JV           |



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