

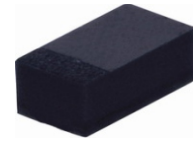
# SMD Schottky Barrier Diode



SMD Diodes Specialist

## CDBUR0145(RoHs Device)

$I_o = 100 \text{ mA}$   
 $V_R = 45 \text{ Volts}$

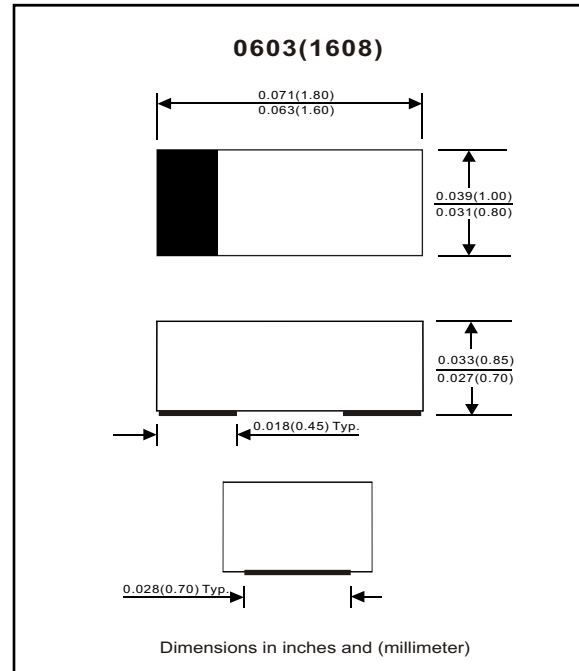


### Features

- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.  
 $(I_R = 0.1 \mu\text{A typ. @ } V_R = 10\text{V})$
- Majority carrier conduction.

### Mechanical data

- Case: 0603(1608) standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 gram(approx.).



### Maximum Rating (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

| Parameter                       | Conditions  | Symbol    | Min | Typ  | Max  | Unit             |
|---------------------------------|---|-----------|-----|------|------|------------------|
| Repetitive peak reverse voltage |   | $V_{RRM}$ |     |      | 50   | V                |
| Reverse voltage                 |   | $V_R$     |     |      | 45   | V                |
| Average forward current         |   | $I_o$     |     |      | 100  | mA               |
| Forward current, surge peak     | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$ |     | 1000 |      | mA               |
| Power Dissipation               |   | $P_D$     |     |      | 150  | mW               |
| Storage temperature             |   | $T_{STG}$ | -40 |      | +125 | $^\circ\text{C}$ |
| Junction temperature            |   | $T_j$     |     |      | +125 | $^\circ\text{C}$ |

### Electrical Characteristics (at $T_A = 25^\circ\text{C}$ unless otherwise noted)

| Parameter                     | Conditions                                     | Symbol | Min | Typ | Max  | Unit          |
|-------------------------------|--|--------|-----|-----|------|---------------|
| Forward voltage               | $I_F = 100 \text{ mA DC}$                      | $V_F$  |     |     | 0.55 | V             |
| Reverse current               | $V_R = 10\text{V}$                             | $I_R$  |     |     | 1    | $\mu\text{A}$ |
| Capacitance between terminals | $F = 1 \text{ MHz}$ and 10 VDC reverse voltage | $C_T$  |     | 9   |      | pF            |

## RATING AND CHARACTERISTIC CURVES (CDBUR0145)

Fig. 1 - Forward characteristics

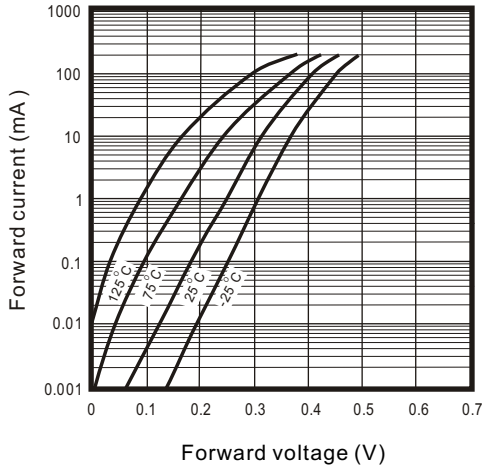


Fig. 2 - Reverse characteristics

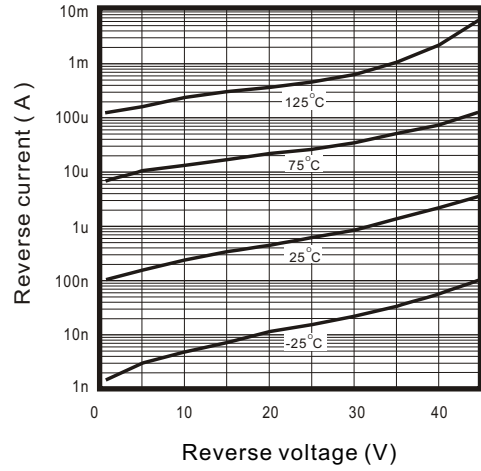


Fig.3 - Capacitance between terminals characteristics

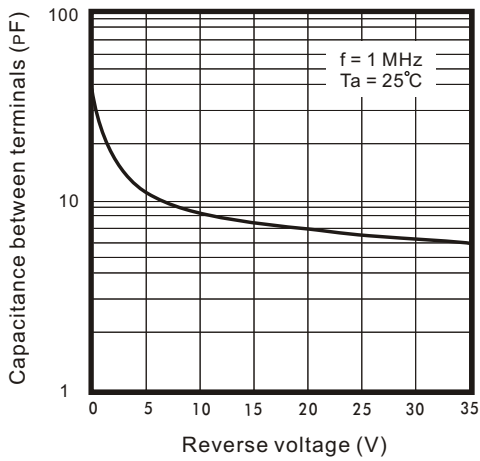


Fig.4 - Current derating curve

