

SMD Schottky Barrier Diode

CDBU0140R (Lead-free Device)

$I_o = 100 \text{ mA}$
 $V_R = 40 \text{ Volts}$

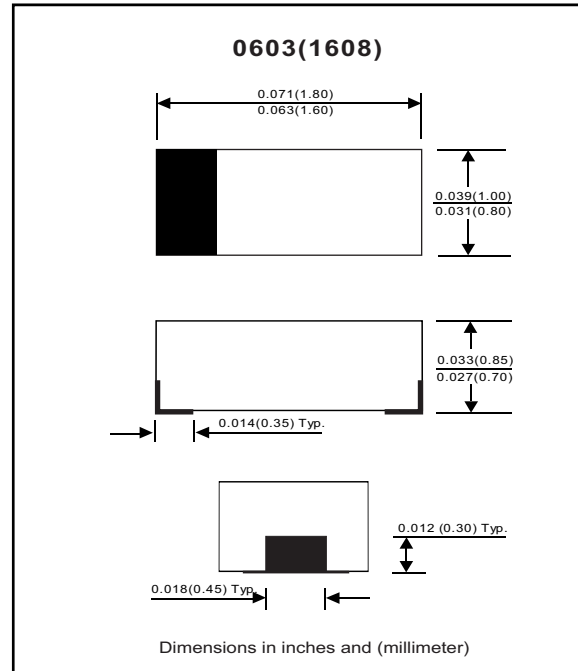


Features

- Low forward Voltage
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Majority carrier conduction.

Mechanical data

- Case: SOD-523F (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 (approximately).



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} | | | 45 | V |
| Reverse voltage | | V_R | | | 40 | V |
| Average forward rectified current | | I_o | | | 100 | mA |
| Forward current , surge peak | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 1 | A |
| Storage temperature | | T_{STG} | -40 | | +125 | $^\circ\text{C}$ |
| Junction temperature | | T_j | -40 | | +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 | $I_F = 10 \text{ mA}$ | V_F | | | 0.45 | V |
| Reverse current | $V_R = 10 \text{ V}$ | I_R | | | 1 | μA |
| Capacitance between terminals | $f = 1 \text{ MHz}$, and 10 VDC reverse voltage | C_T | | 6 | | pF |

RATING AND CHARACTERISTIC CURVES (CDBU0140R)

Fig. 1 - Forward characteristics

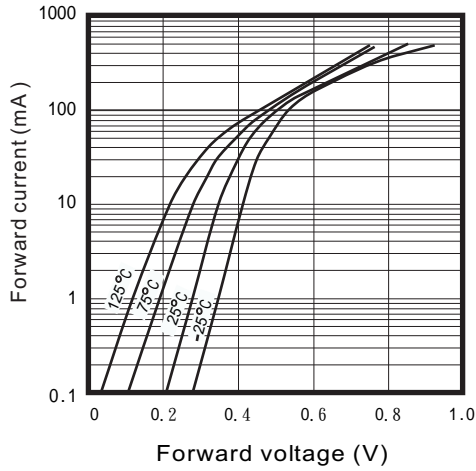


Fig. 2 - Reverse characteristics

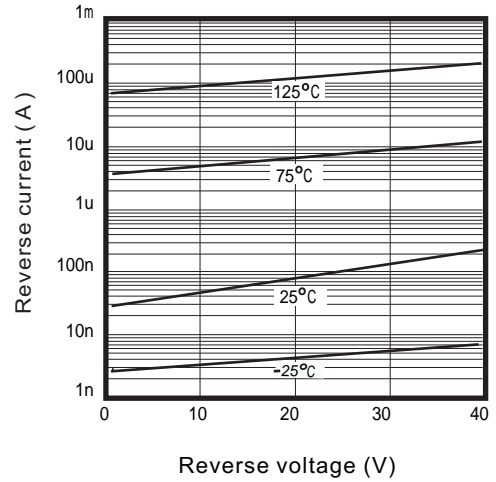


Fig. 3 - Capacitance between terminals characteristics

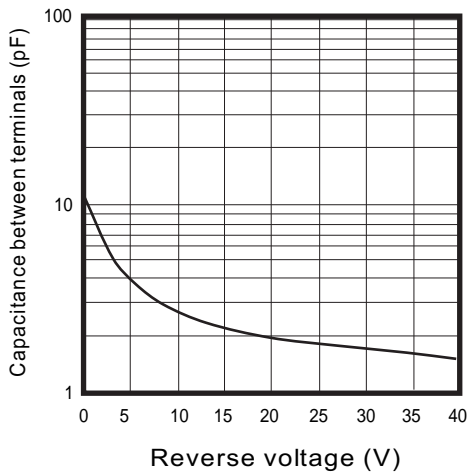


Fig. 4 - Current derating curve

