

SMD Schottky Barrier Diode

CDBF0140R (Lead-free Device)

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

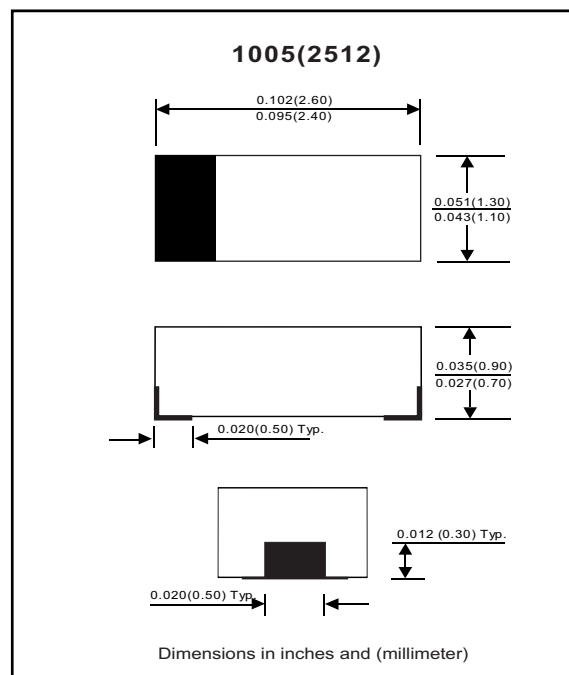


Features

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

Mechanical data

- Case: 1005 (2512) Standard package , molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.006 gram (approximately).



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Peak reverse voltage		V_{RM}			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 (CDBF0140R)

Fig. 1 - Forward characteristics

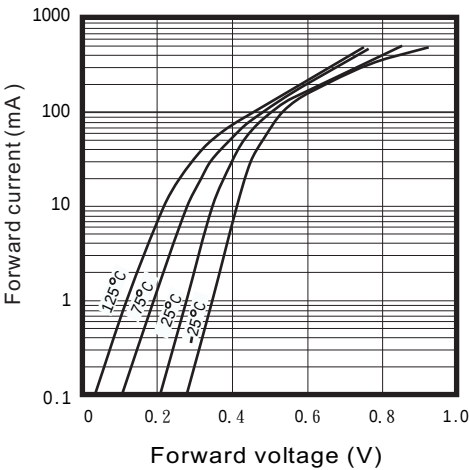


Fig. 2 - Reverse characteristics

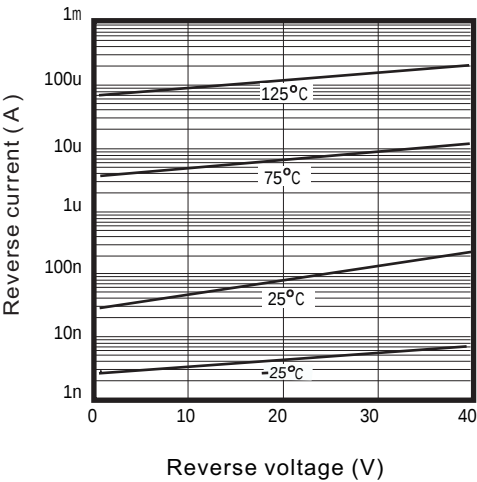


Fig. 3 - Capacitance between terminals characteristics

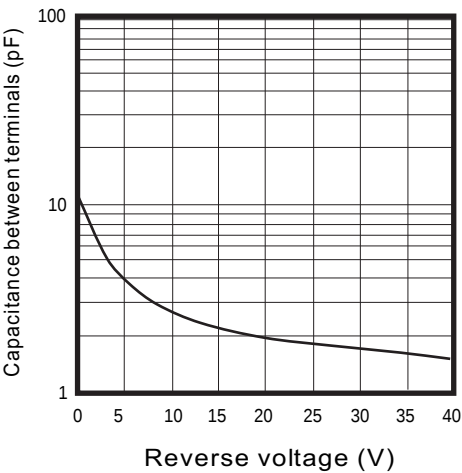


Fig. 4 - Current derating curve

