

# SMD Schottky Barrier Diode

## CDBU0145 (Lead-free 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

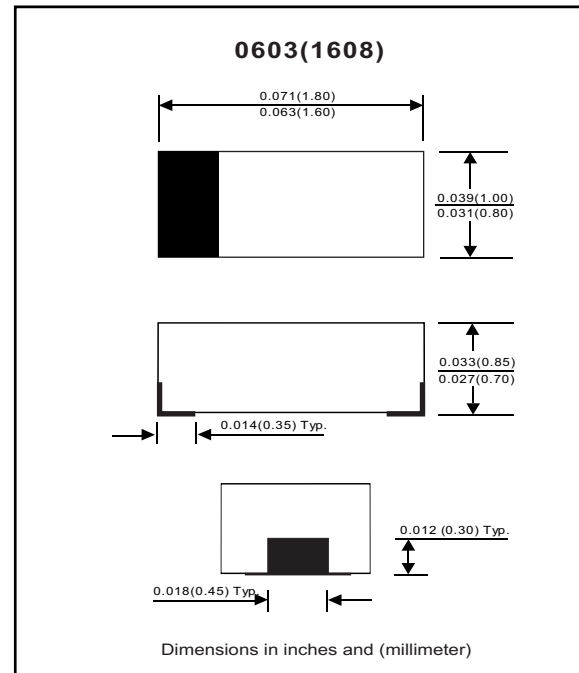
Case: 0603 (1608) Standard package, molded plastic.

Terminals: Gold plated, solderable per MIL-STD-750, method 2026.

Polarity: Indicated by cathode band.

Mounting position: Any.

Weight: 0.003 gram (approximately).



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		$V_{RRM}$			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		$T_j$	-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	$I_F = 100 \text{ mADC}$	$V_F$			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 (CDBU0145)

Fig. 1 - Forward characteristics

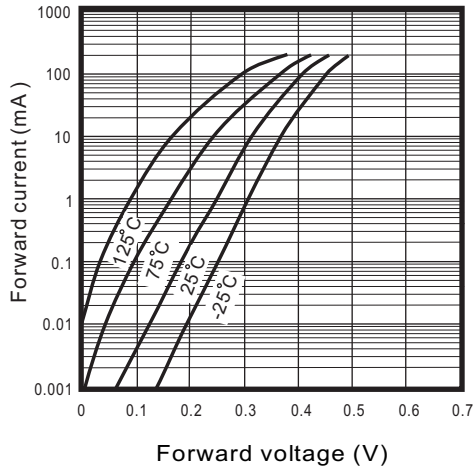


Fig. 2 - Reverse characteristics

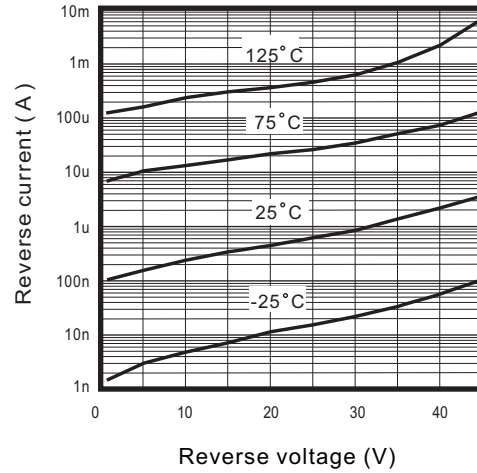


Fig. 3 - Capacitance between terminals characteristics

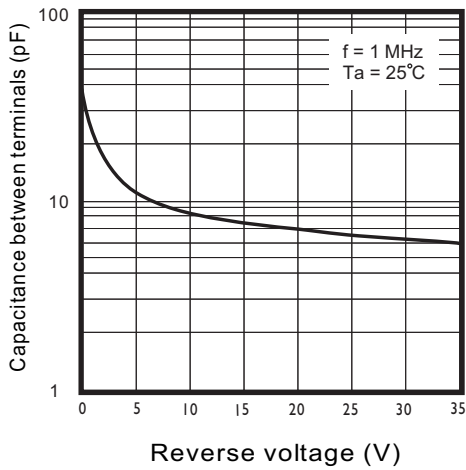


Fig. 4 - Current derating curve

