

# SMD Schottky Barrier Diode



SMD Diodes Specialist

## CDBF0520L (Lead-free Device)

$I_o = 500 \text{ mA}$   
 $V_R = 20 \text{ Volts}$

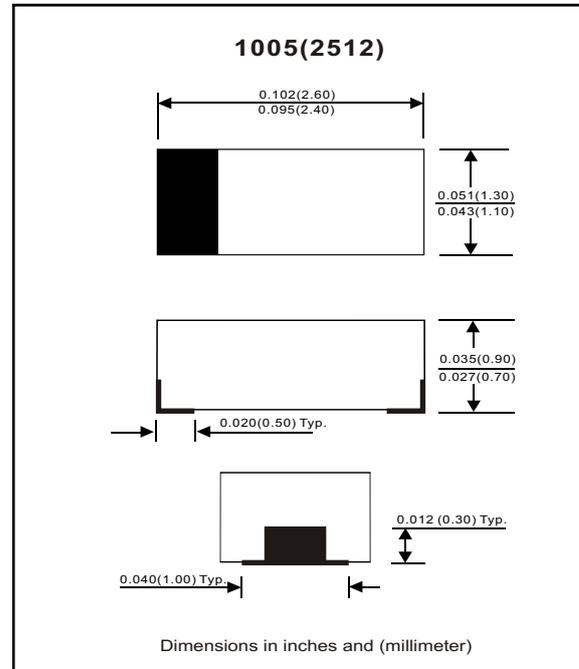


### Features

- 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(approx.).



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Peak reverse voltage		$V_{RM}$			20	V
Reverse voltage		$V_R$			20	V
Average forward rectified current		$I_o$			0.5	A
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			5.5	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	$I_F = 100\text{mA}$ @ $T_a = 25^\circ\text{C}$ $I_F = 500\text{mA}$ @ $T_a = 25^\circ\text{C}$ $I_F = 100\text{mA}$ @ $T_a = 100^\circ\text{C}$ $I_F = 500\text{mA}$ @ $T_a = 100^\circ\text{C}$	$V_F$			300 385 220 330	mV
Reverse current	$V_R = 10\text{V}$ @ $T_a = 25^\circ\text{C}$ $V_R = 20\text{V}$ @ $T_a = 25^\circ\text{C}$	$I_R$			75 250	$\mu\text{A}$
Capacitance between terminals	$f = 1 \text{ MHz}$ , and 0 VDC reverse voltage	$C_T$			170	pF
Reverse recovery time	$I_F = I_R = 10\text{mA}$ , $I_{rr} \times I_R$ , $R_L = 100\text{ohm}$	$T_{rr}$		22		ns

## RATING AND CHARACTERISTIC CURVES (CDBF0520L)

Fig. 1 - Forward characteristics

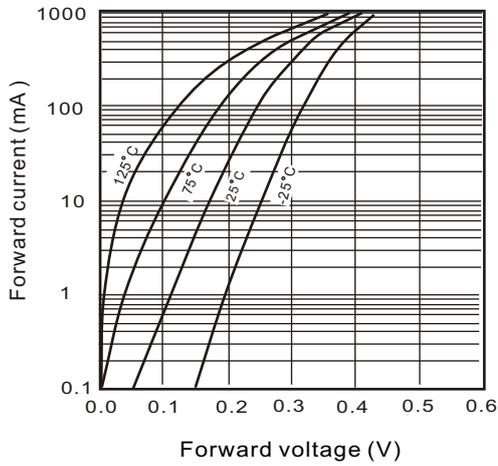


Fig. 2 - Reverse characteristics

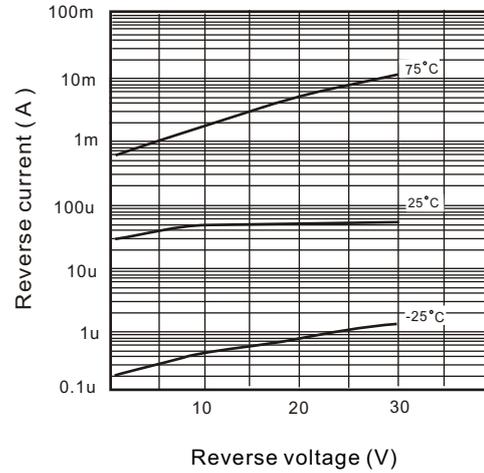


Fig. 3 - Capacitance between terminals characteristics

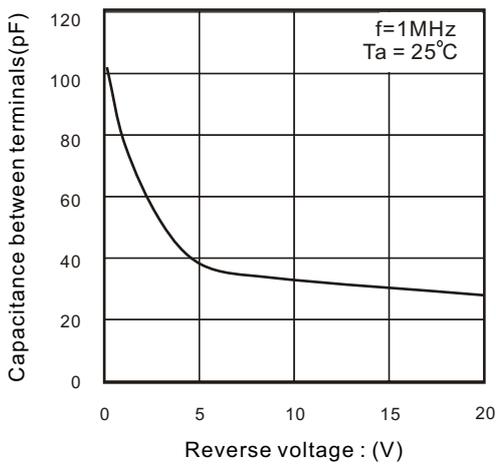


Fig. 4 - Current derating curve

