

SMD Schottky Barrier Diode

CDBFR0320/0330/0340 (RoHS Device)

$I_O = 350 \text{ mA}$

$V_R = 20 \text{ to } 40 \text{ Volts}$

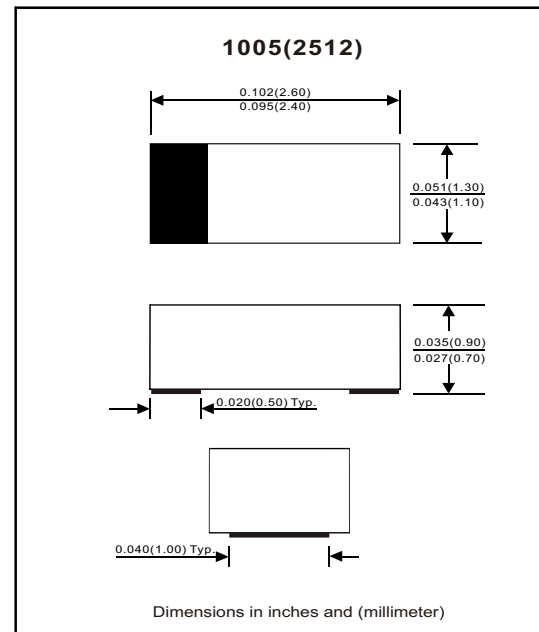


Features

- 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 (approx.).



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

Parameter	Symbol	CDBFR0320	CDBFR0330	CDBFR0340	Unit
Repetitive Peak reverse voltage Reverse voltage	V_{RRM} V_R	20	30	40	V
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average forward rectified current	I_O	350			mA
Forward current, surge peak 8.3 ms single half sine-wave	I_{FSM}	1.5			A
Power dissipation	P_D	200			mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500			$^\circ\text{C}/\text{W}$
Storage temperature	T_{STG}	-65 TO +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
Reverse current CDBFR0320 CDBFR0330 CDBFR0340	$V_R = 10\text{V}$ $V_R = 20\text{V}$ $V_R = 30\text{V}$	I_R			5 5 5	μA
Forward voltage	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$	V_F			0.37 0.60	V
Capacitance between terminals	$f = 1 \text{ MHz}$, and 0 VDC reverse voltage	C_T		50		pF
Reverse recovery time	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100 \text{ ohm}$	T_{rr}		6.4		nS

RATING AND CHARACTERISTIC CURVES (CDBFR0320/0330/0340)

Fig. 1 - Forward characteristics

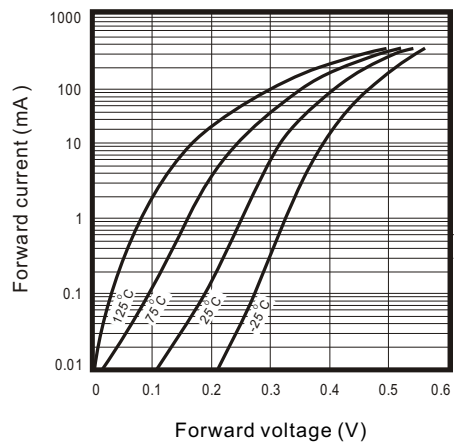


Fig. 2 - Reverse characteristics

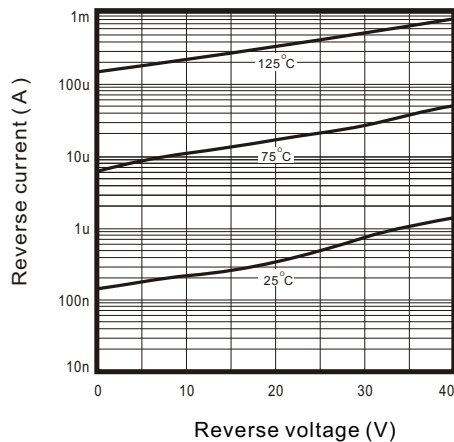


Fig.3 - Capacitance between terminals characteristics

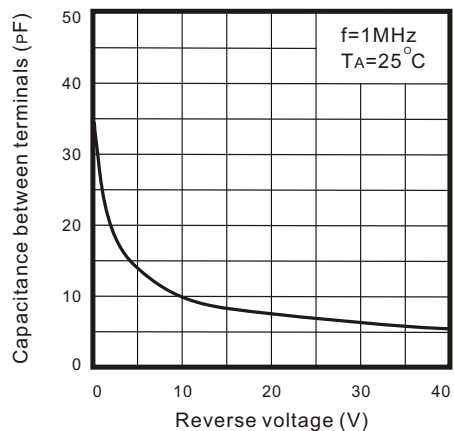


Fig.4 - Current derating curve

