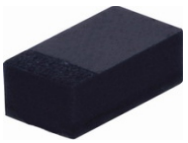
SMD Schottky Barrier Diode

COMCHIP
SMD Diodes Specialist

CDBFR0540 (RoHs Device)

I_O = 500 mA
V_R = 40 Volts

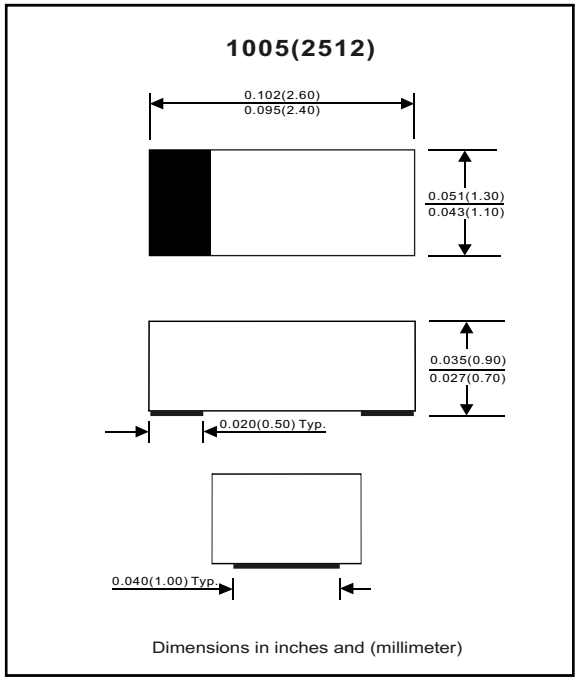


Features

- 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°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive Peak reverse voltage		V_{RM}			40	V
Reverse voltage		V_R			40	V
Average forward rectified current		I_O			500	mA
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	°C
Junction temperature		T_j			+125	°C

Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 0.5 A @Ta = 25 °C I_F = 1 A @Ta = 25 °C I_F = 0.5 A @Ta = 100 °C I_F = 1 A @Ta = 100 °C	V_F			0.51 0.64 0.46 0.62	V
Reverse current	V_R = 20V @Ta = 25 °C V_R = 40V @Ta = 25 °C V_R = 20V @Ta = 100 °C V_R = 40V @Ta = 100°C	I_R			10 20 2 5	uA
Capacitance between terminals	f = 1 MHz, and 0 VDC reverse voltage	C_T			170	pF
Reverse recovery time	I_F = I_R = 10mA, Irr = 0.1 X I_R, R_L = 100ohm	Trr		22		ns

RATING AND CHARACTERISTIC CURVES (CDBFR0540)

Fig. 1 - Forward characteristics

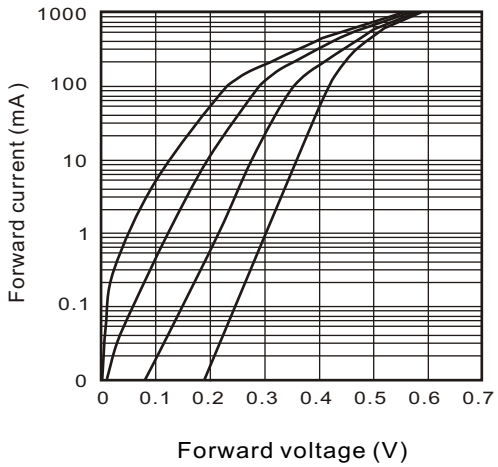


Fig. 2 - Reverse characteristics

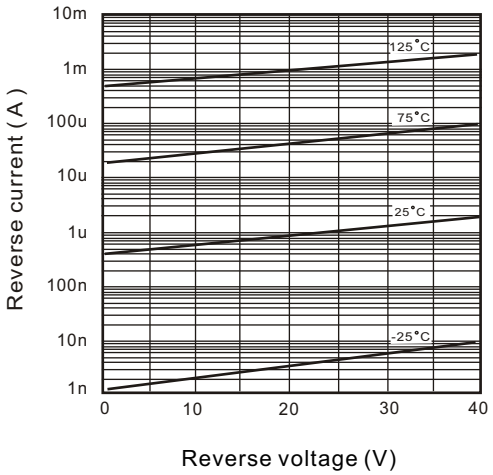


Fig. 3 - Capacitance between terminals characteristics

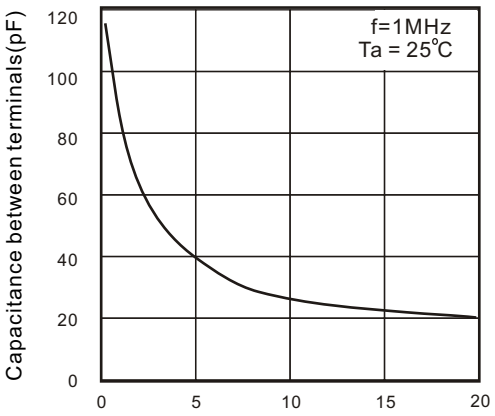


Fig. 4 - Current derating curve