SMD Schottky Barrier Diode

COMCHIP
SMD Diodes Specialist

CDBF0540 (Lead-free Device)

Io = 500 mA
V_R = 40 Volts

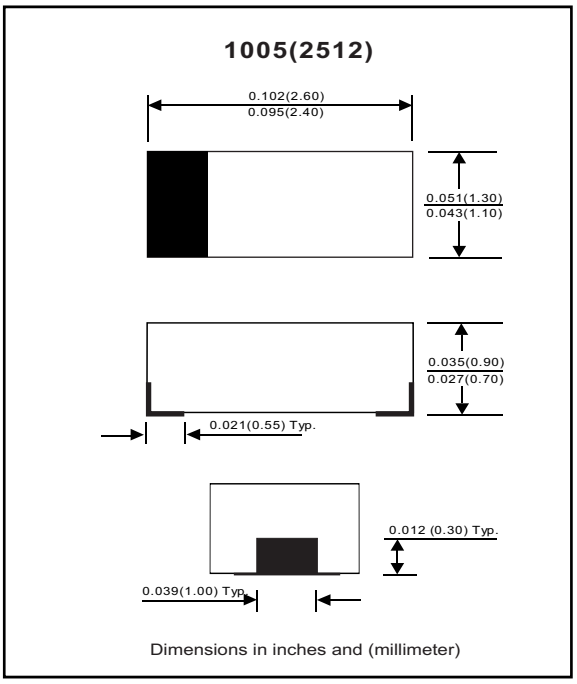
Features

Low forward Voltage

Designed for mounting on small surface.

Extremely thin/leadless package.

Majority carrier conduction.



Dimensions in inches and (millimeter)

Mechanical data

Case: SOD-323F (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°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			40	V
Reverse voltage		V_R			40	V
Average forward rectified current		Io			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		Tj	-40		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF = 0.5A @Ta=25 °C	V_F			0.51	V
	IF = 1 A @Ta=25 °C	V_F			0.64	V
	IF = 0.5A @Ta=100 °C	V_F			0.46	V
	IF = 1 A @Ta=100 °C	V_F			0.62	V
Reverse current	VR = 20 V @Ta= 25 °C	I_R			10	uA
	VR = 40 V @Ta= 25 °C	I_R			20	uA
	VR = 20 V @Ta=100 °C	I_R			2	mA
	VR = 40 V @Ta=100 °C	I_R			5	mA
Capacitance between terminals	f = 1MHz, 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=100 ohm	T_{rr}		22		ns

RATING AND CHARACTERISTIC CURVES (CDBF0540)

Fig. 1 - Forward characteristics

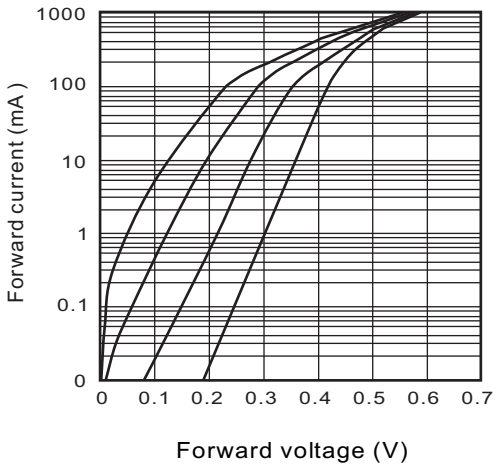


Fig. 2 - Reverse characteristics

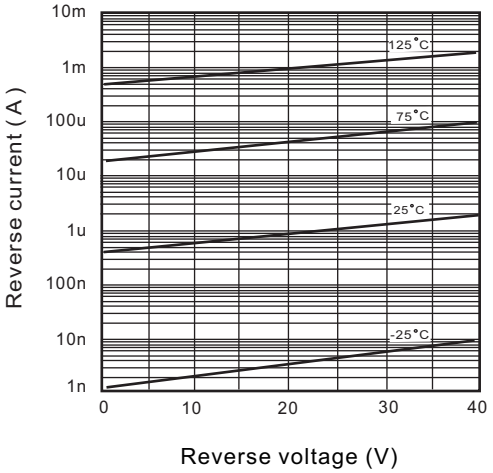


Fig. 3 - Capacitance between terminals characteristics

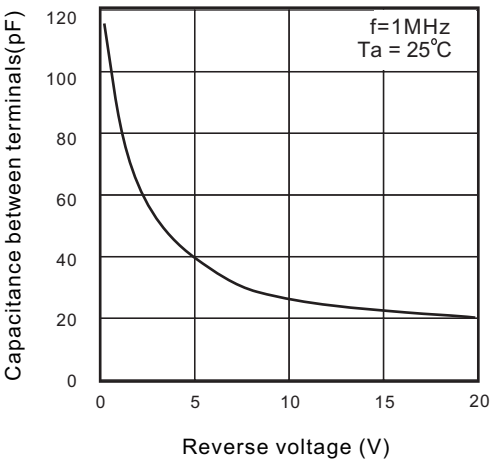


Fig. 4 - Current derating curve