

# SMD Schottky Barrier Diode



SMD Diodes Specialist

## CDBFR42/43 (RoHS Device)

$I_o = 200 \text{ mA}$   
 $V_R = 30 \text{ Volts}$

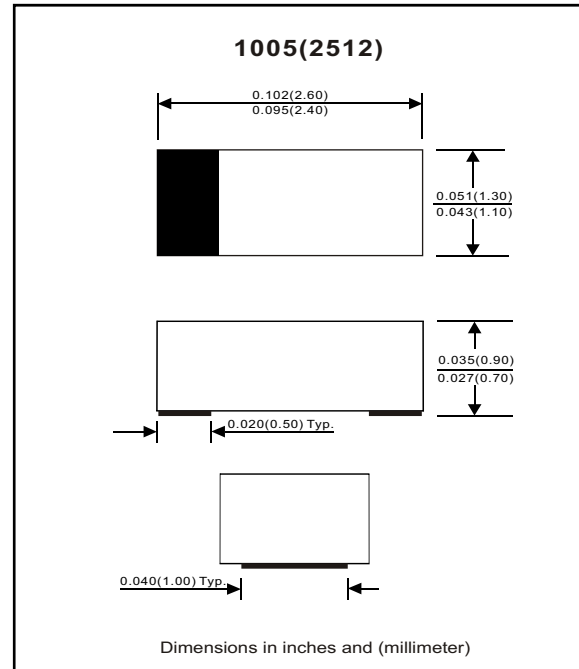


### Features

- 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		$V_{RM}$			30	V
Reverse voltage		$V_R$			30	V
RMS reverse voltage		$V_{R(RMS)}$			21	V
Average forward rectified current		$I_o$			200	mA
Repetitive peak forward current		$I_{FRM}$			0.5	A
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			4	A
Power Dissipation		$P_D$			200	mW
Thermal resistance junction to ambient air		$R_{\theta JA}$			500	$^\circ\text{C/W}$
Storage temperature		$T_{STG}$	-55		+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
Forward voltage	$I_F = 200\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 2\text{mA}$ $I_F = 15\text{mA}$	$V_F$			1 0.4 0.65 0.33 0.45	V
Reverse current	$V_R = 25\text{V}$	$I_R$			0.5	$\mu\text{A}$
Capacitance between terminals	$f = 1 \text{ MHz}$ , and 1 VDC reverse voltage	$C_T$			10	pF
Reverse recovery time	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \times I_R$ , $R_L=100 \text{ ohm}$	$T_{rr}$			5	nS

REV:A

## RATING AND CHARACTERISTIC CURVES (CDBFR42/43)

Fig. 1 - Forward characteristics

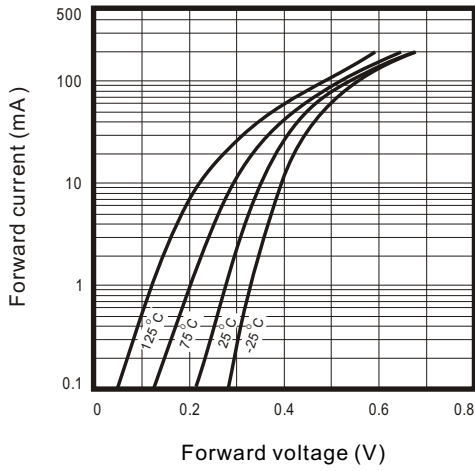


Fig. 2 - Reverse characteristics

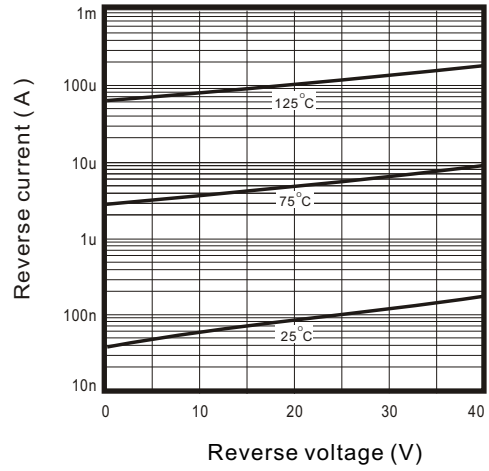


Fig.3 - Capacitance between terminals characteristics

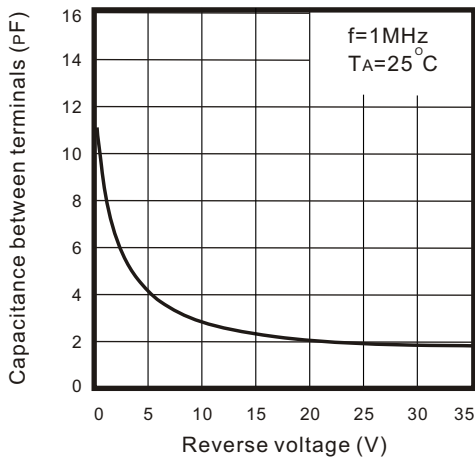


Fig.4 - Current derating curve

