SMD Schottky Barrier Diodes

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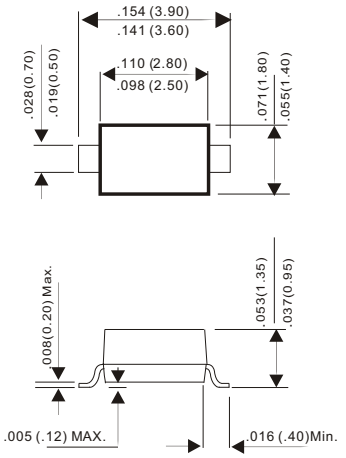
CDBW0520 - CDBW0540

Voltage: 20- 40 Volts
Current: 0.5 Amp

Feature

- Low turn-on voltage
- Fast switching
- PN junction guard ring for transient and ESD protection

SOD-123



Dimensions in inches and (millimeters)

Mechanical data

- Case: SOD-123, molded plastic
- Terminals: solderable per MIL-STD-750, method 2026
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight:0.008 grams

Maximum Ratings and Electrical Characterics

Parameter	Symbol	CDBW0520	CDBW0530	CDBW0540	Unit
Max.RepetitivePeak Reverse Voltage	V_{RRM}	20	30	40	V
Max. DC Blocking Voltage	V_{DC}	14	21	28	V
Max. RMS Voltage	V_{RMS}	20	30	40	V
Peak Surge Forward Current 8.3ms single half sine-wave Sine-wave superimposed on Rate load (JEDEC)	I_{FSM}	5.5			A
Max. AverageForward Current	I o	0.5			A
Max. Forward Current at 0.1 A 0.5 A	V_F	0.3 0.385	0.375 0.430	 0.51	V
Max. Reverse Current	I_R	0.075 @ V_R=10V 0.25 @ V_R=20V	0.02 @ V_R=15V 0.13 @ V_R=30V	0.01@ V_R=20V 0.02 @ V_R=40V	mA
Max. Thermal Resistance	$R\theta_{JA}$ $R\theta_{JL}$	206 150			°C/W
Operating junction temperature	Tj	-55 to +125			°C
Storage temperature	T_{STG}	-55 to +125			°C

Note 1: Thermal resistance from junction to ambient and junction to to lead P.C.B. Mounted on 0.2 x 0.2 copper pad areas

RATING AND CHARACTERISTIC CURVES (CDBW0520-0540)

Fig. 1 - Reverse Characteristics

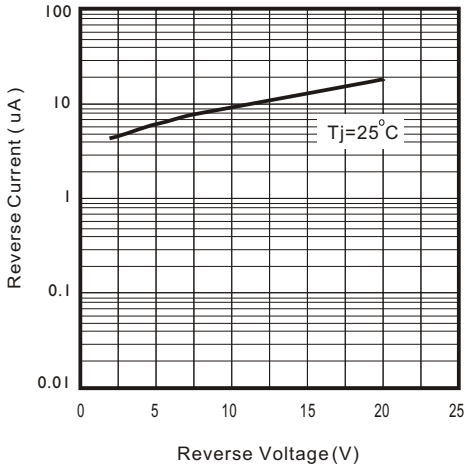


Fig. 2 - Reverse Characteristics

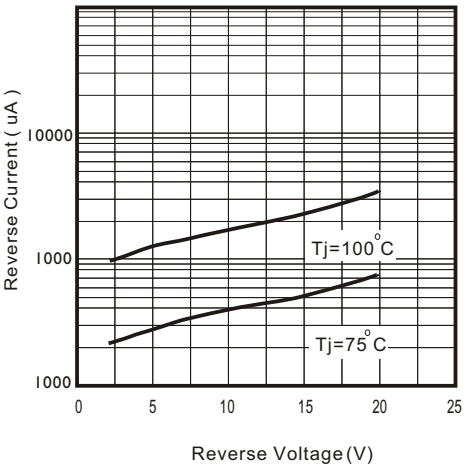


Fig. 3 - Forward Characteristics

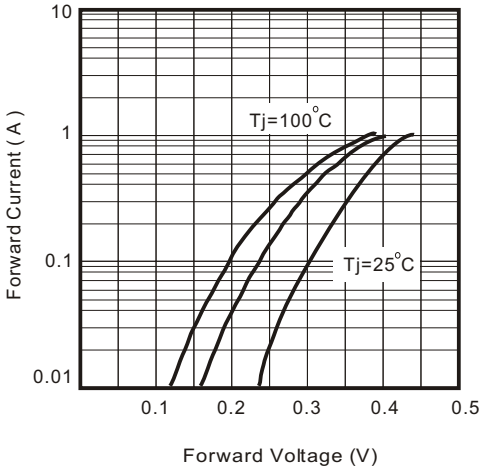


Fig. 4 - Current Derating Curve

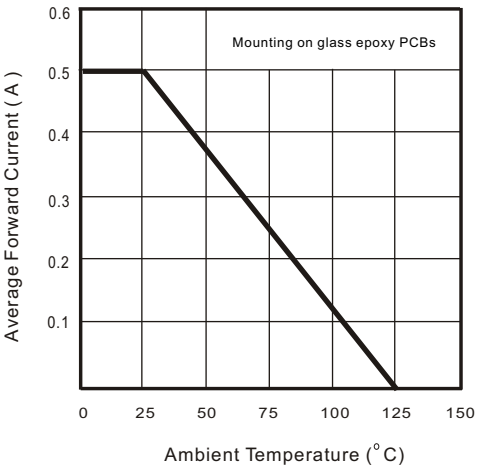


Fig. 3 - Capacitance Between Terminals characteristics