

CDBW120-G Thru. CDBW140-G

Forward current: 1.0A
Reverse voltage: 20 to 40V
RoHS Device



Features

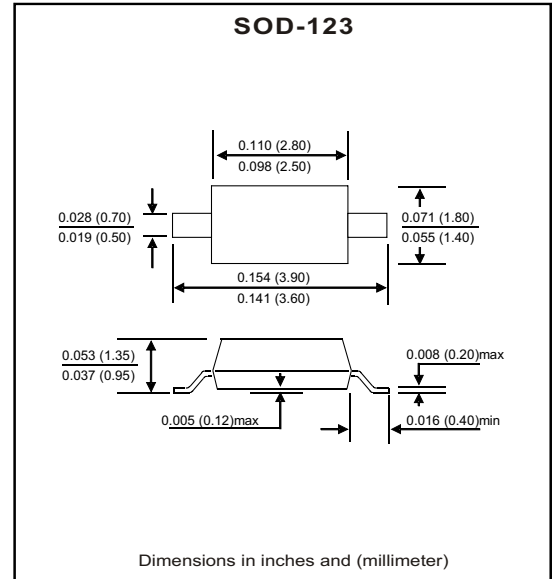
- For use in low voltage, high frequency inverters.
- Free wheeling, and polarity protection applications.

Mechanical Data

- Case: SOD-123, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: indicated by cathode end.
- Weight: approx. 0.008 grams.

Marking

CDBW0120-G: SJ
 CDBW0130-G: SK
 CDBW0140-G: SL



Maximum Ratings (At Ta=25°C, unless otherwise noted)

Parameter	Symbol	CDBW0120-G	CDBW0130-G	CDBW0140-G	Unit
Non-repetitive peak reverse voltage	V _{RM}	20	30	40	V
Peak repetitive peak reverse voltage	V _{RRM}	20	30	40	V
Working peak reverse voltage	V _{RWM}				
DC blocking voltage	V _R				
RMS reverse voltage	V _{R(RMS)}	14	21	28	V
Average rectified output current	I _O	1			A
Peak forward surge current @8.3ms	I _{FSM}	25			A
Repetitive peak forward current	I _{FRM}	625			mA
Power dissipation	P _D	250			mW
Thermal resistance, junction to ambient	R _{θJA}	500			°C/W
Storage temperature	T _{STG}	-65 ~ +150			°C

Electrical Characteristics (At Ta=25°C, unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	I _R =1mA CDBW0120-G CDBW0130-G CDBW0140-G	V _{BR}	20 30 40		V
Reverse voltage leakage current	V _R =20V V _R =30V V _R =40V CDBW0120-G CDBW0130-G CDBW0140-G	I _R		1	mA
Forward voltage	I _F =1A CDBW0120-G CDBW0130-G CDBW0140-G	V _F		0.45 0.55 0.60	V
	I _F =3A CDBW0120-G CDBW0130-G CDBW0140-G			0.75 0.875 0.90	
Diode capacitance	V _R =4V, f=1MHz	C _D		120	pF

RATING AND CHARACTERISTIC CURVES (CDBW120-G Thru. CDBW140-G)

Fig.1 Typical Forward Current Derating Curve

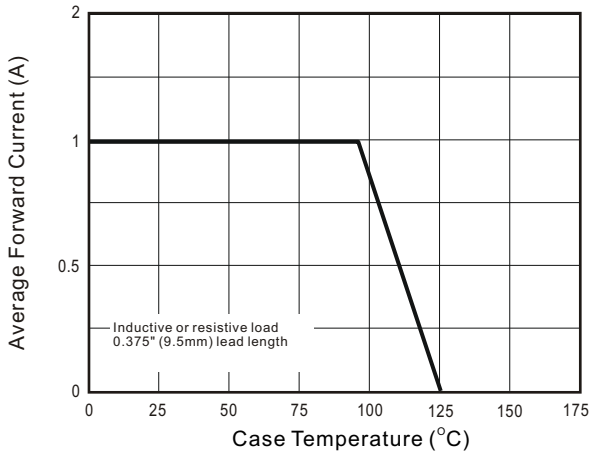


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

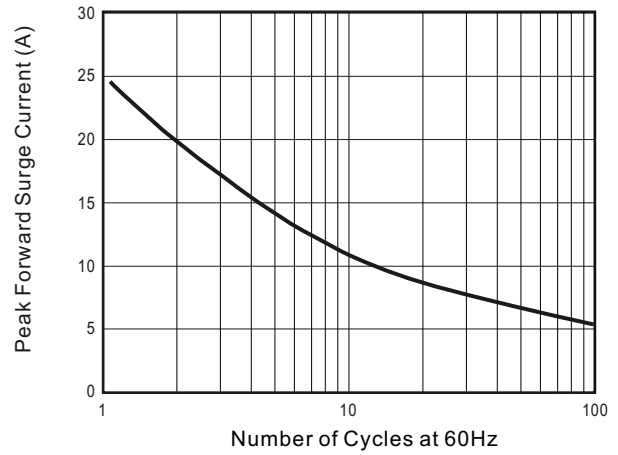


Fig.3 Typical Instantaneous Forward Characteristics

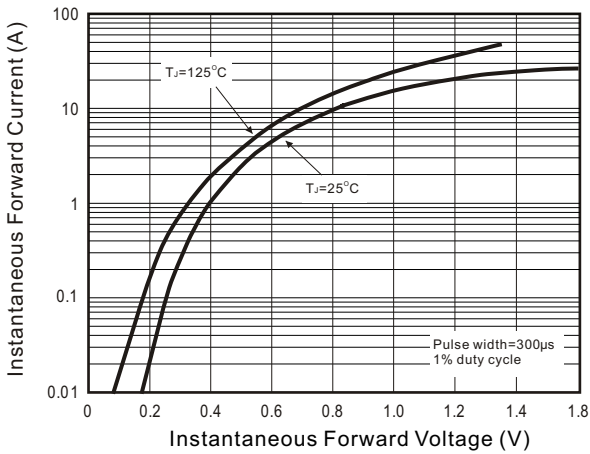


Fig.4 Typical Reverse Characteristics

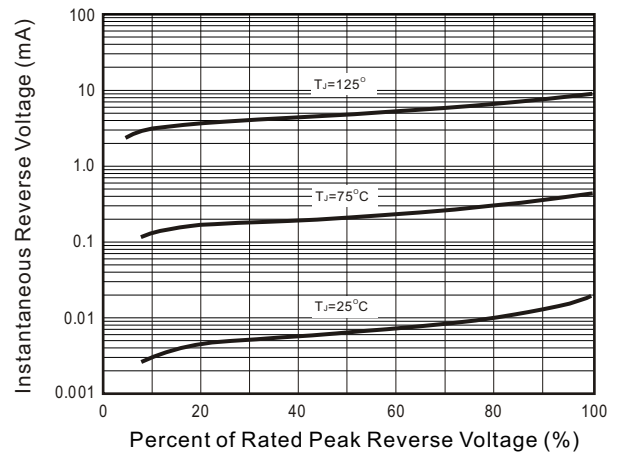


Fig.5 Typical Junction Capacitance

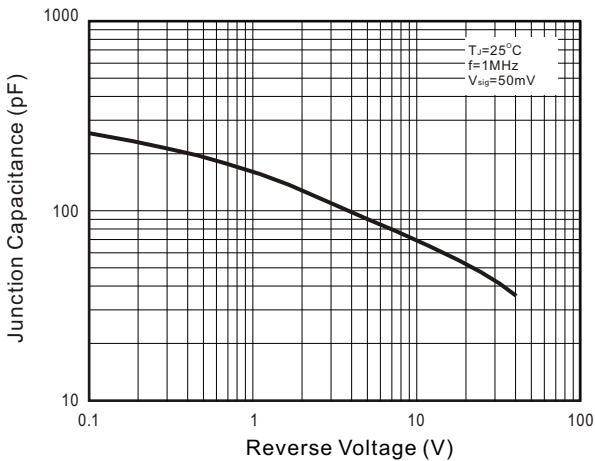


Fig.6 Typical Transient Thermal Impedance

