

SMD Schottky Barrier Diode



SMD Diodes Specialist

CDBV120-G THRU. CDBV140-G

$I_o=1.0A$

$V_R=20 \sim 40V$

RoHS Device



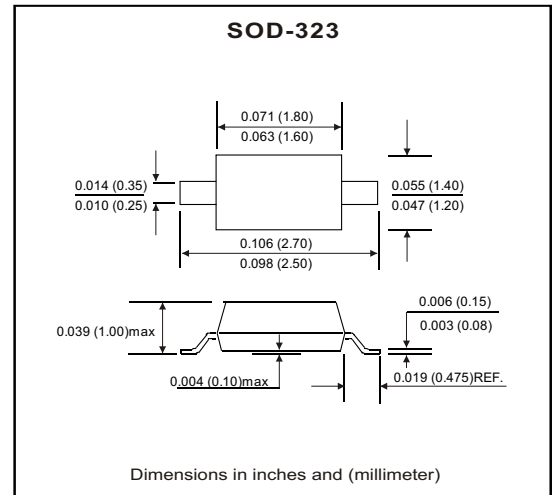
Features

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

Mechanical Data

- Case: Molded plastic SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026.1.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Marking:

CDBV120-G : SJ
 CDBV130-G : SK
 CDBV140-G : SL



Maximum Ratings (at $T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	CDBV120-G	CDBV130-G	CDBV140-G	Unit
Non-repetitive peak reverse voltage	V_{RM}	20	30	40	V
Peak repetitive peak reverse voltage Working peak reverse voltage DC blocking voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average rectified output current	I_o	1			A
Peak forward surge current @ $T_p=8.3mS$	I_{FSM}	25			A
Repetitive peak forward current	I_{FRM}	625			mA
Power dissipation	P_D	200			mW
Thermal resistance (junction to ambient)	$R_{\theta JA}$	625			$^\circ C/W$
Storage temperature	T_{STG}	-65~+150			$^\circ C$

Electrical Characteristics (at $T_A=25^\circ C$ unless otherwise specified)

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	$I_R=1mA$ CDBV120-G CDBV130-G CDBV140-G	V_{BR}	20 30 40		V
Reverse leakage current	$V_R=20V$ $V_R=30V$ $V_R=40V$ CDBV120-G CDBV130-G CDBV140-G	I_R		1	mA
Forward voltage	$I_F=1.0A$ CDBV120-G CDBV130-G CDBV140-G	V_F		0.45 0.55 0.60	V
	$I_F=3.0A$ CDBV120-G CDBV130-G CDBV140-G	V_F		0.75 0.875 0.90	V
Diode Capacitance	$V_R=4V, f=1MHz$	C_D		120	pF

ELECTRICAL CHARACTERISTIC CURVES (CDBV120-G thru. CDBV140-G)

Fig.1 Forward Current Derating Curve

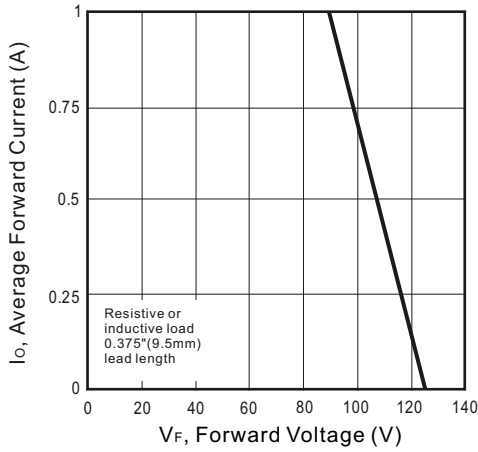


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

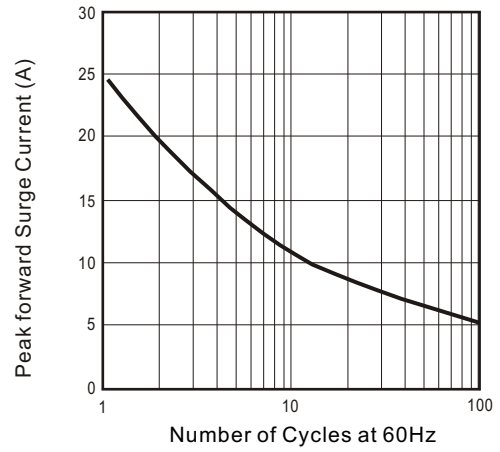


Fig.3 Typical Instantaneous Forward Characteristics

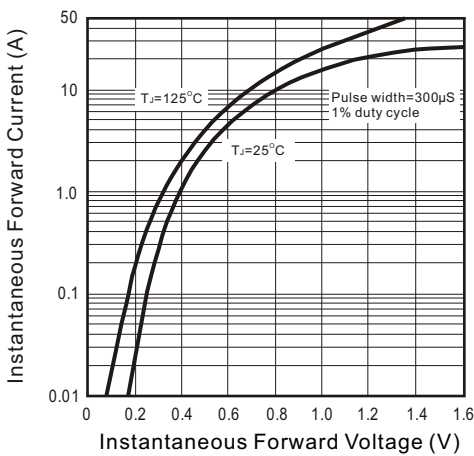


Fig.4 Typical Reverse Characteristics

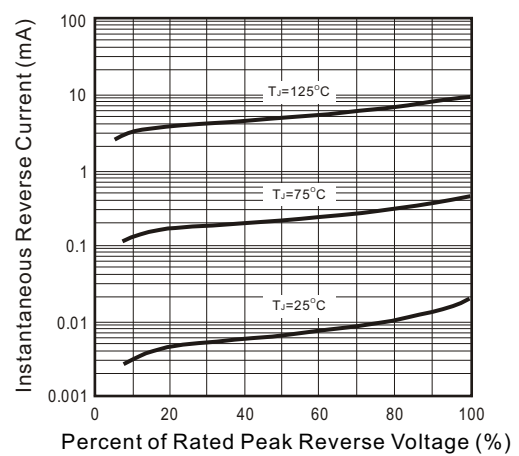


Fig.5 Typical Junction Capacitance

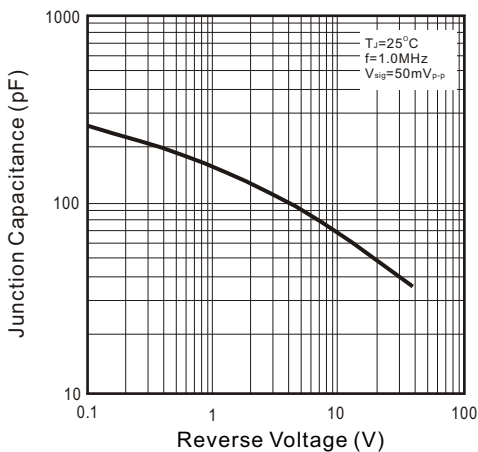


Fig.6 Typical Transient Thermal Impedance

