

# SMD Schottky Barrier Diode



SMD Diodes Specialist

## CDBV120-G THRU. CDBV140-G

$I_o=1.0A$

$V_R=20 \sim 40V$

RoHS Device



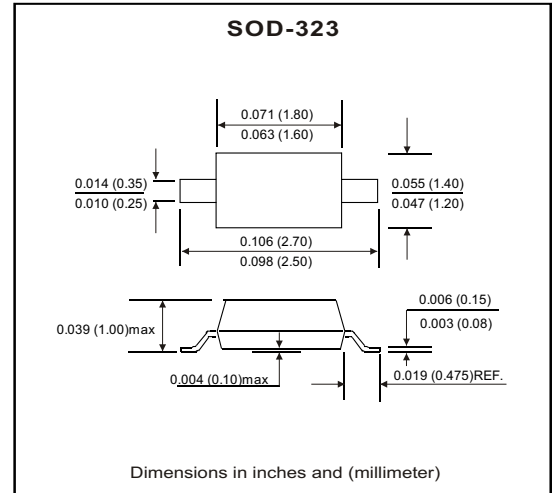
### Features

- 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

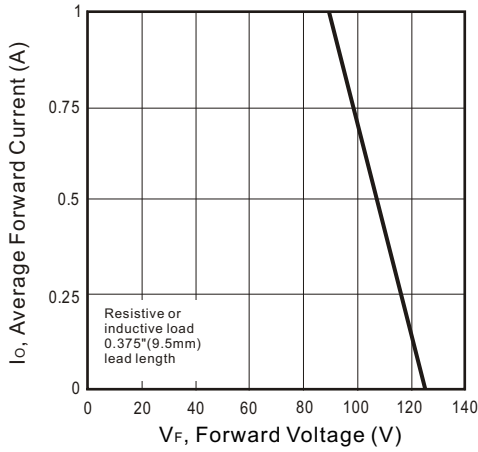


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

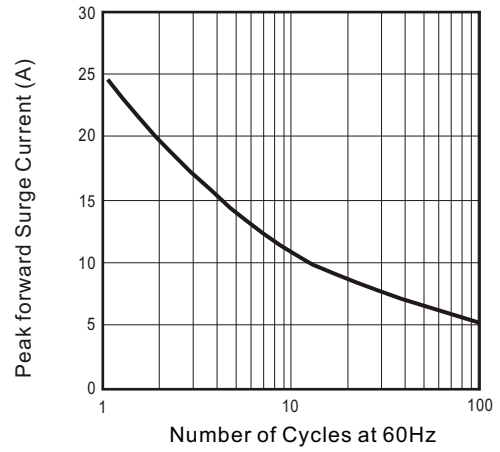


Fig.3 Typical Instantaneous Forward Characteristics

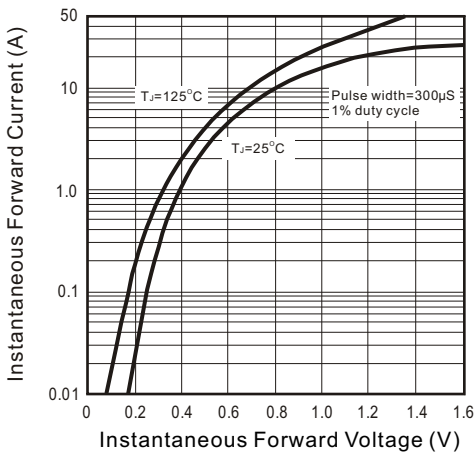


Fig.4 Typical Reverse Characteristics

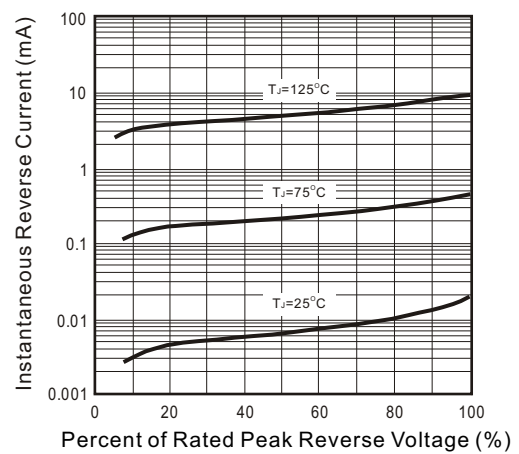


Fig.5 Typical Junction Capacitance

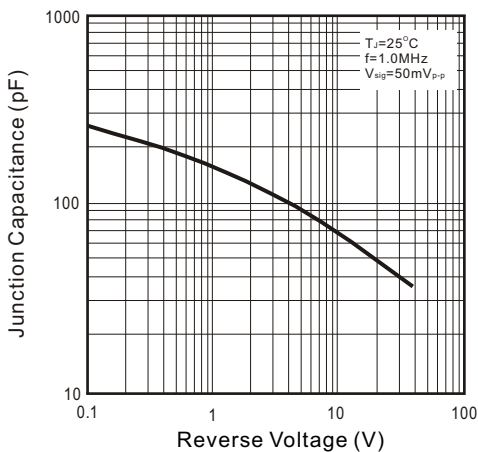


Fig.6 Typical Transient Thermal Impedance

