SMD Schottky Barrier Diode

COMCHIP
SMD Diodes Specialist

CDBV120-G THRU. CDBV140-G

Io=1.0A
VR=20 ~ 40V
RoHS Device

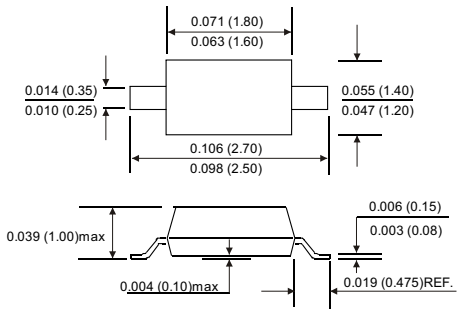
Features

-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

SOD-323



Dimensions in inches and (millimeter)

Maximum Ratings (at T_A=25°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 @Tp=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			°C/W
Storage temperature	T_{STG}	-65~+150			°C

Electrical Characteristics (at T_A=25°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

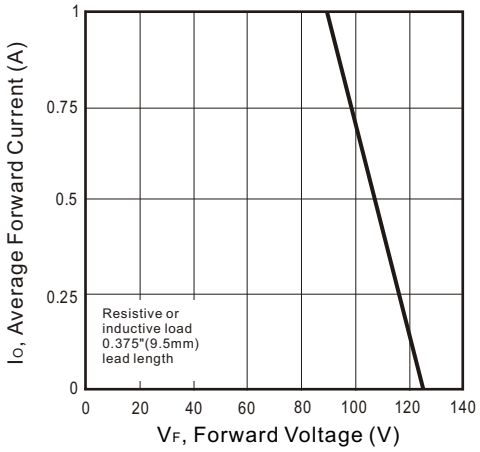


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

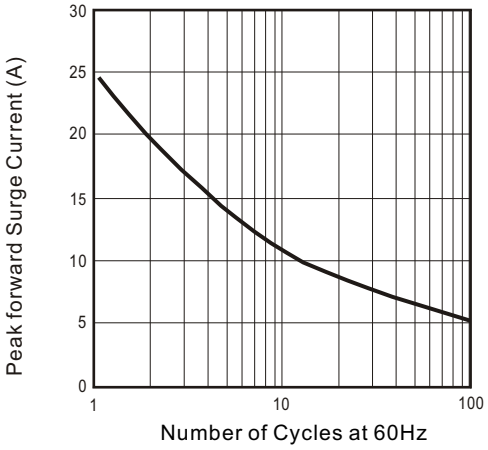


Fig.3 Typical Instantaneous Forward Characteristics

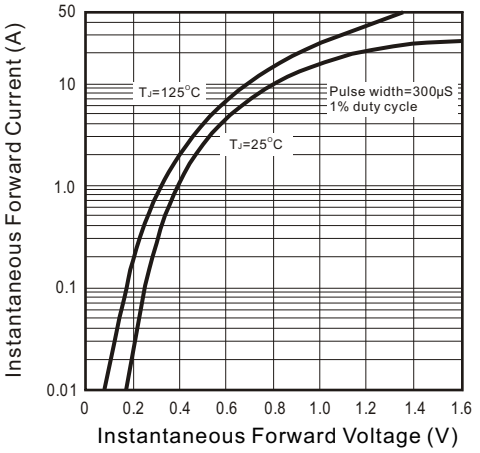


Fig.4 Typical Reverse Characteristics

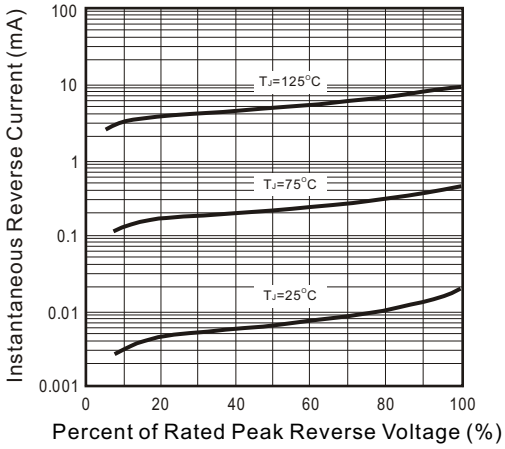


Fig.5 Typical Junction Capacitance

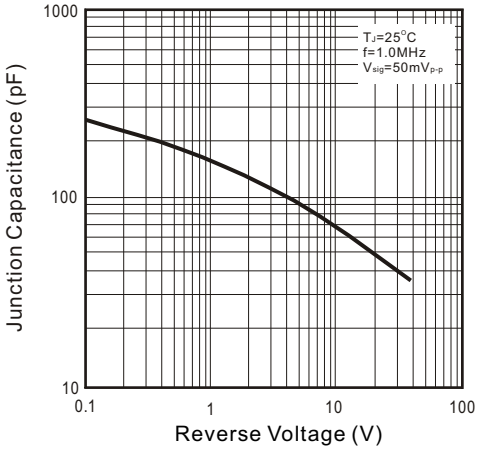


Fig.6 Typical Transient Thermal Impedance