

# SMD Schottky Barrier Diodes

**COMCHIP**  
SMD Diodes Specialist

## CDBW0520L-G Thru. CDBW0540-G

**Reverse Voltage: 20 to 40 Volts**

**Forward Current: 0.5 Amp**

**RoHS Device**

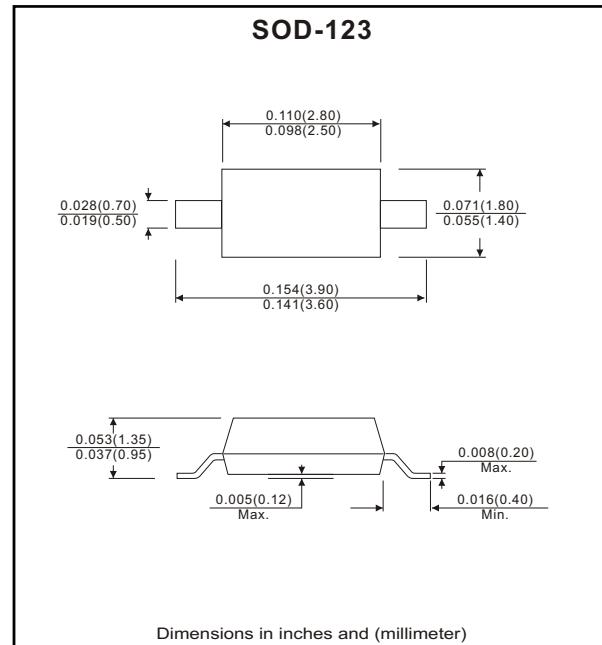


### Features

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

### Mechanical data

- Case: SOD-123, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.008 grams



### Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CDBW0520L-G	CDBW0530-G	CDBW0540-G	Units
Max. repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	V
Max. DC blocking voltage	V <sub>DC</sub>	20	30	40	V
Max. RMS voltage	V <sub>RMS</sub>	14	21	28	V
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I <sub>FSM</sub>		5.5		A
Max. average forward current	I <sub>o</sub>		0.5		A
Max. forward voltage	V <sub>F</sub>	0.3@I <sub>F</sub> =0.1A 0.385@I <sub>F</sub> =0.5A	0.375@I <sub>F</sub> =0.1A 0.430@I <sub>F</sub> =0.5A	0.51@I <sub>F</sub> =0.5A 0.62@I <sub>F</sub> =1.0A	V
Max. reverse current	I <sub>R</sub>	0.075@V <sub>R</sub> =10V 0.25@V <sub>R</sub> =20V	0.02@V <sub>R</sub> =15V 0.13@V <sub>R</sub> =30V	0.01@V <sub>R</sub> =20V 0.02@V <sub>R</sub> =40V	mA
Max. thermal resistance (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>		206 150		°C/W
Max. operating junction temperature	T <sub>J</sub>		125		°C
Storage temperature	T <sub>STG</sub>		-55 to +125		°C

Notes: 1. Thermal resistance from junction to ambient and junction to lead, mounted on P.C.B. with 0.2×0.2 inch<sup>2</sup> copper pad area.

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## RATING AND CHARACTERISTIC CURVES (CDBW0520L-G thru CDBW0540-G)

Fig.1 Forward Characteristics

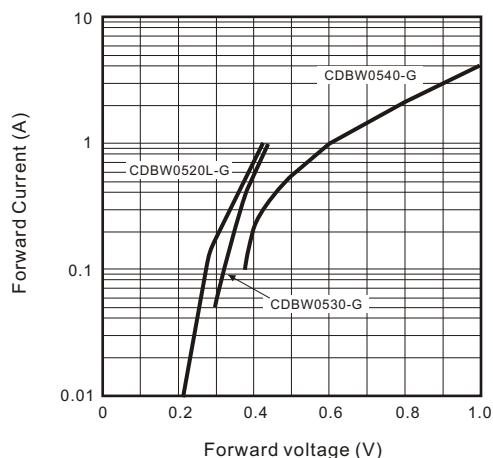


Fig.2 Current Derating Curve

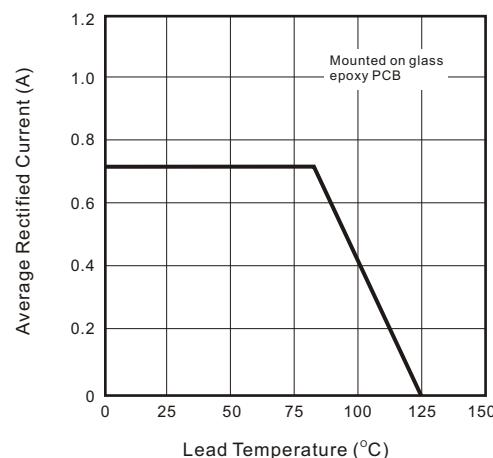


Fig.3 Total Capacitance vs. Reverse voltage

