

CDBW0520L-HF Thru. CDBW0540-HF

Reverse Voltage: 20 to 40 Volts

Forward Current: 0.5 Amp

RoHS Device

Halogen Free



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.
- Weight: 0.0097 gram(approx.).

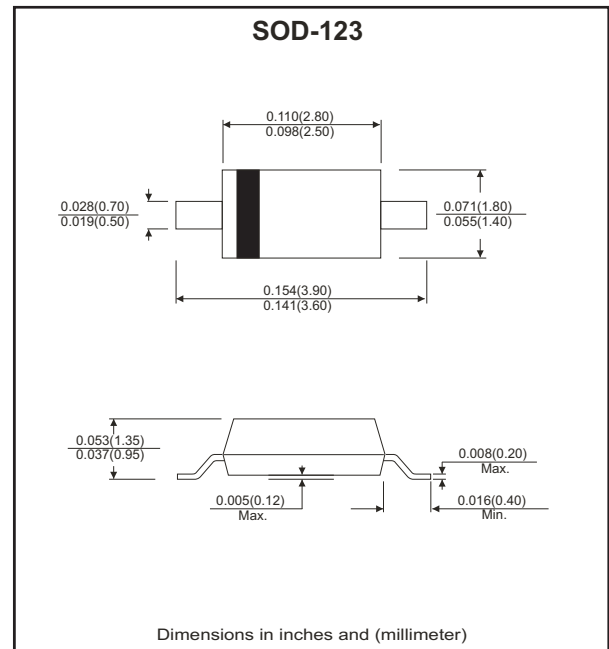
Marking

CDBW0520L-G: SD

CDBW0530-G: SE

CDBW0540-G: SF

Circuit Diagram



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

Parameter	Symbol	CDBW0520L-HF	CDBW0530-HF	CDBW0540-HF	Units
Max. repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Max. DC blocking voltage	V_{DC}	20	30	40	V
Max. RMS voltage	V_{RMS}	14	21	28	V
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	5.5			A
Max. average forward current	I_o	0.5			A
Max. forward voltage	V_F	0.3@ $I_F=0.1A$ 0.385@ $I_F=0.5A$	0.375@ $I_F=0.1A$ 0.430@ $I_F=0.5A$	0.51@ $I_F=0.5A$ 0.62@ $I_F=1.0A$	V
Max. reverse current	I_R	0.075@ $V_R=10V$ 0.25@ $V_R=20V$	0.02@ $V_R=15V$ 0.13@ $V_R=30V$	0.01@ $V_R=20V$ 0.02@ $V_R=40V$	mA
Max. thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	206 150			°C/W
Max. operating junction temperature	T_J	125			°C
Storage temperature	T_{STG}	-55 to +125			°C

Notes: 1. Thermal resistance from junction to ambient and junction to lead, mounted on P.C.B. with 0.2x0.2 inch copper pad area.

Company reserves the right to improve product design, functions and reliability without notice.

RATING AND CHARACTERISTIC CURVES (CDBW0520L-HF thru CDBW0540-HF)

Fig.1 Forward Characteristics

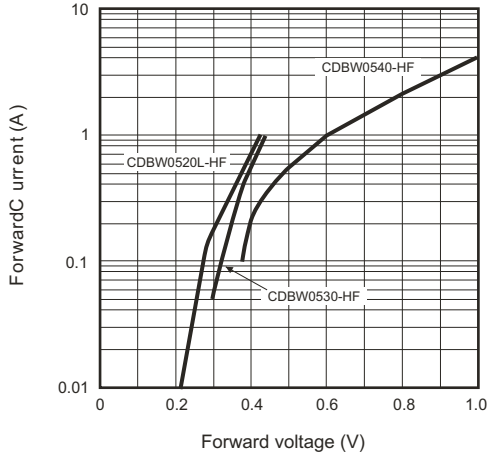


Fig.2 Current Derating Curve

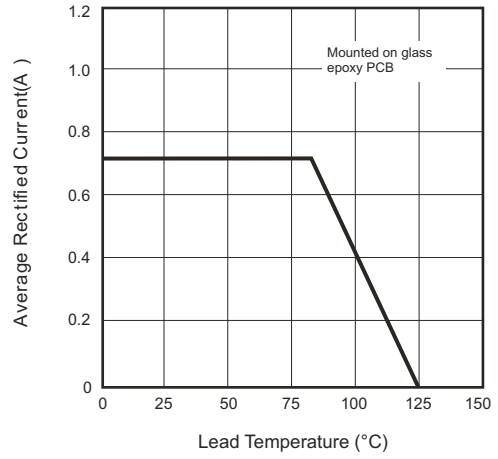
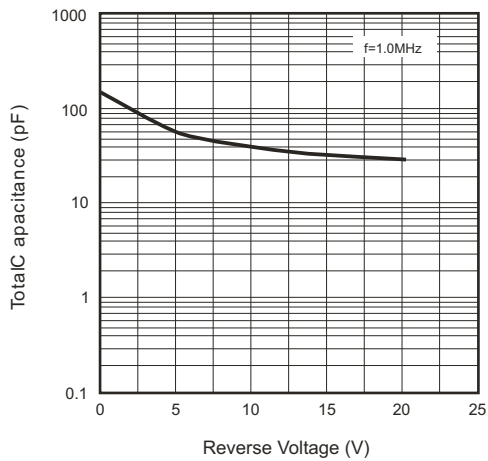
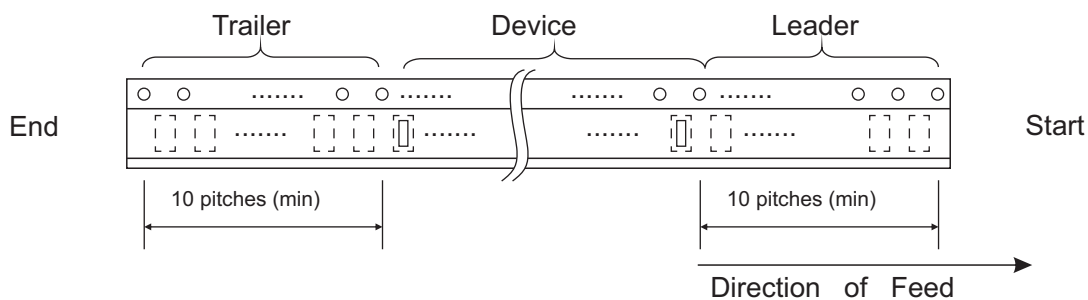
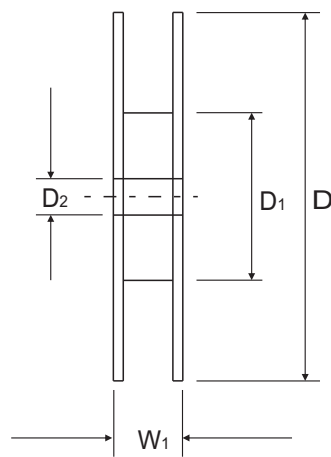
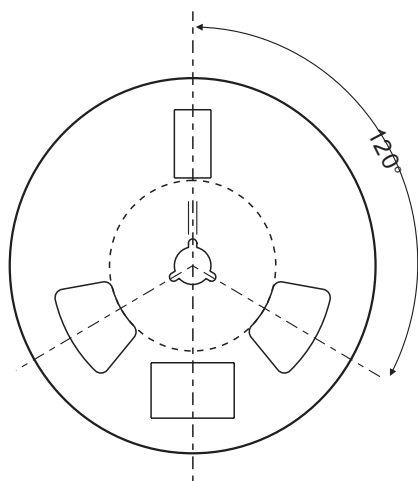
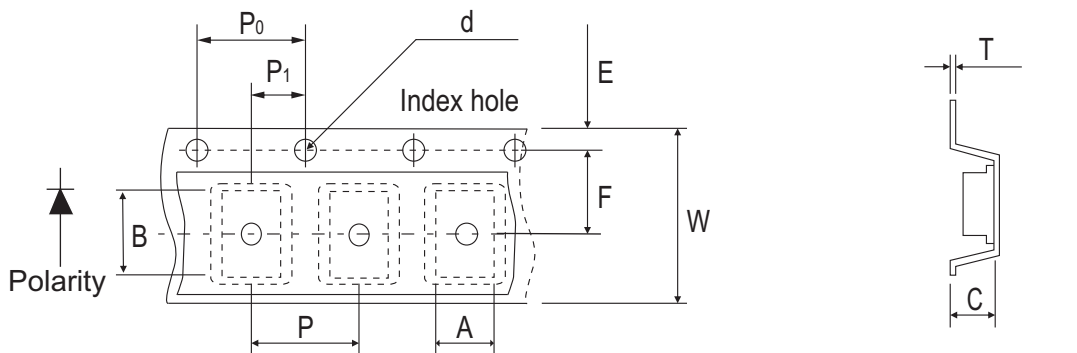


Fig.3 Total Capacitance vs. Reverse voltage



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.90 ± 0.10	4.00 ± 0.10	1.50 ± 0.10	1.55 ± 0.10	178 ± 1.00	50.0 MIN.	13.0 ± 0.20
	(inch)	0.075 ± 0.04	0.157 ± 0.04	0.059 ± 0.04	0.061 ± 0.04	7.00 ± 0.039	1.968 MIN.	0.512 ± 0.079

SOD-123	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30	14.4 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.011	0.567 MAX.

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REV:A

Marking Code

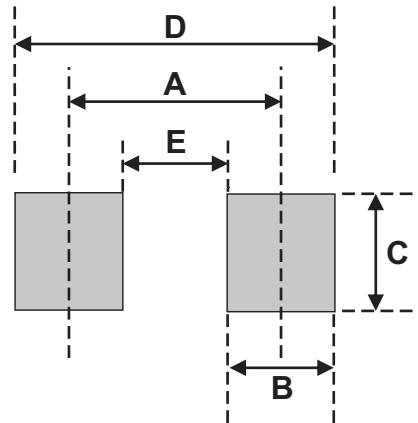
Part Number	Marking Code
CDBW0520L-HF	SD
CDBW0530-HF	SE
CDBW0540-HF	SF



xx = Product type marking code

Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.24	0.128
B	0.80	0.032
C	1.00	0.039
D	4.04	0.159
E	2.44	0.096



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7

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