

CDBV140-HF

Forward current: 1.0A

Reverse voltage: 40V

RoHS Device

Halogen Free



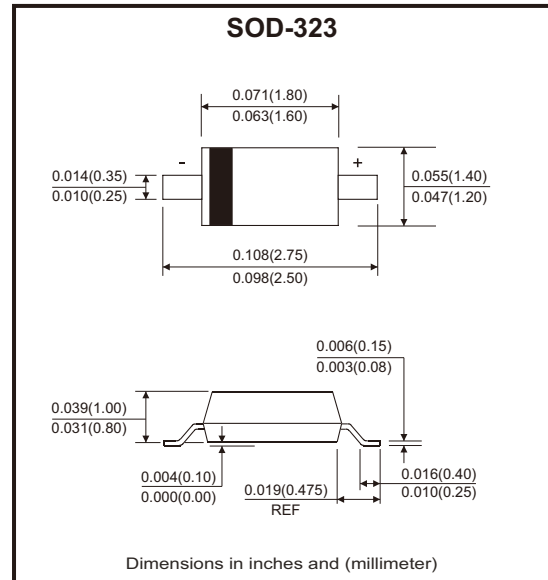
Features

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

Mechanical Data

- Case: SOD-323, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode end.

Circuit Diagram



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

Parameter	Symbol	CDBV140-HF	Unit
Non-repetitive peak reverse voltage	V_{RM}	40	V
Peak repetitive peak reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage	V_{RMS}	28	V
Average rectified output current	I_O	1	A
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	9	A
Repetitive peak forward current	I_{FRM}	1.5	A
Power dissipation	P_D	250	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	400	°C/W
Junction temperature range	T_J	-40 ~ +125	°C
Storage temperature range	T_{STG}	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$I_R = 1mA$	V_{BR}	40			V
Reverse voltage leakage current	$V_R = 40V$	I_R			1	mA
Forward voltage	$I_F = 1A$	V_F			0.60	V
	$I_F = 3A$				0.90	V
Diode capacitance	$V_R = 4V, f = 1MHz$	C_D			120	pF

Typical Rating and Characteristic Curves (CDBV140-HF)

Fig.1- Power Derating Curve

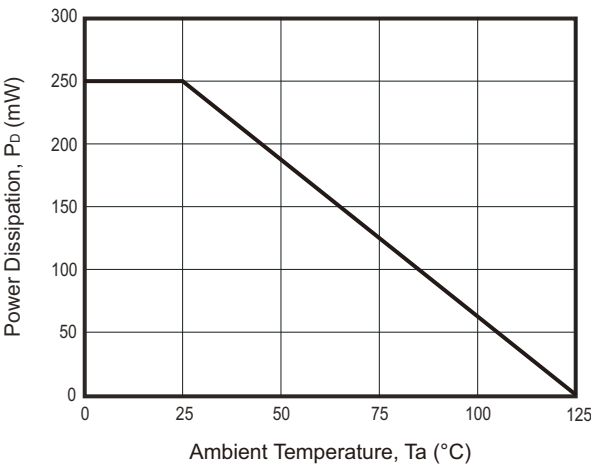


Fig.2- Capacitance Characteristics

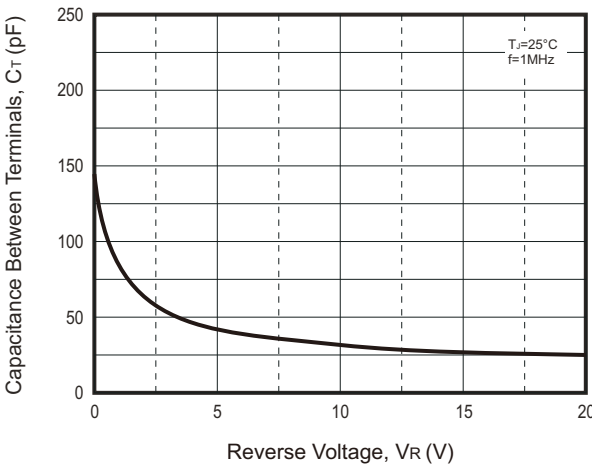


Fig.3 - Forward Characteristics

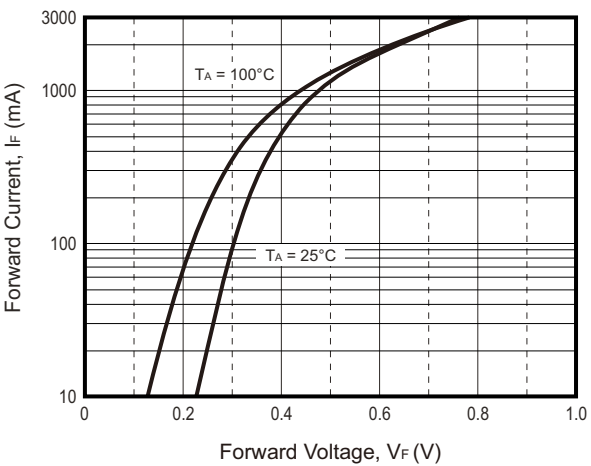
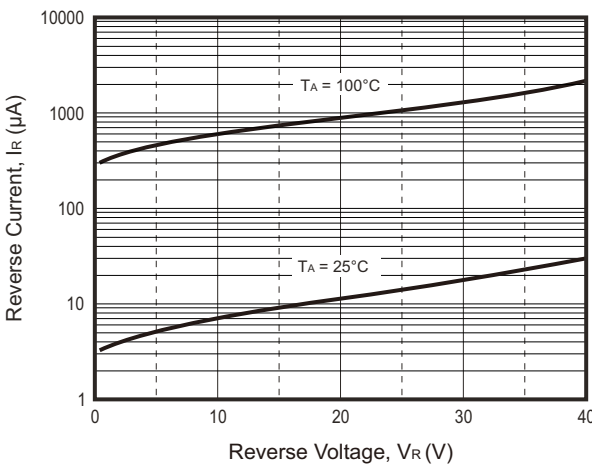
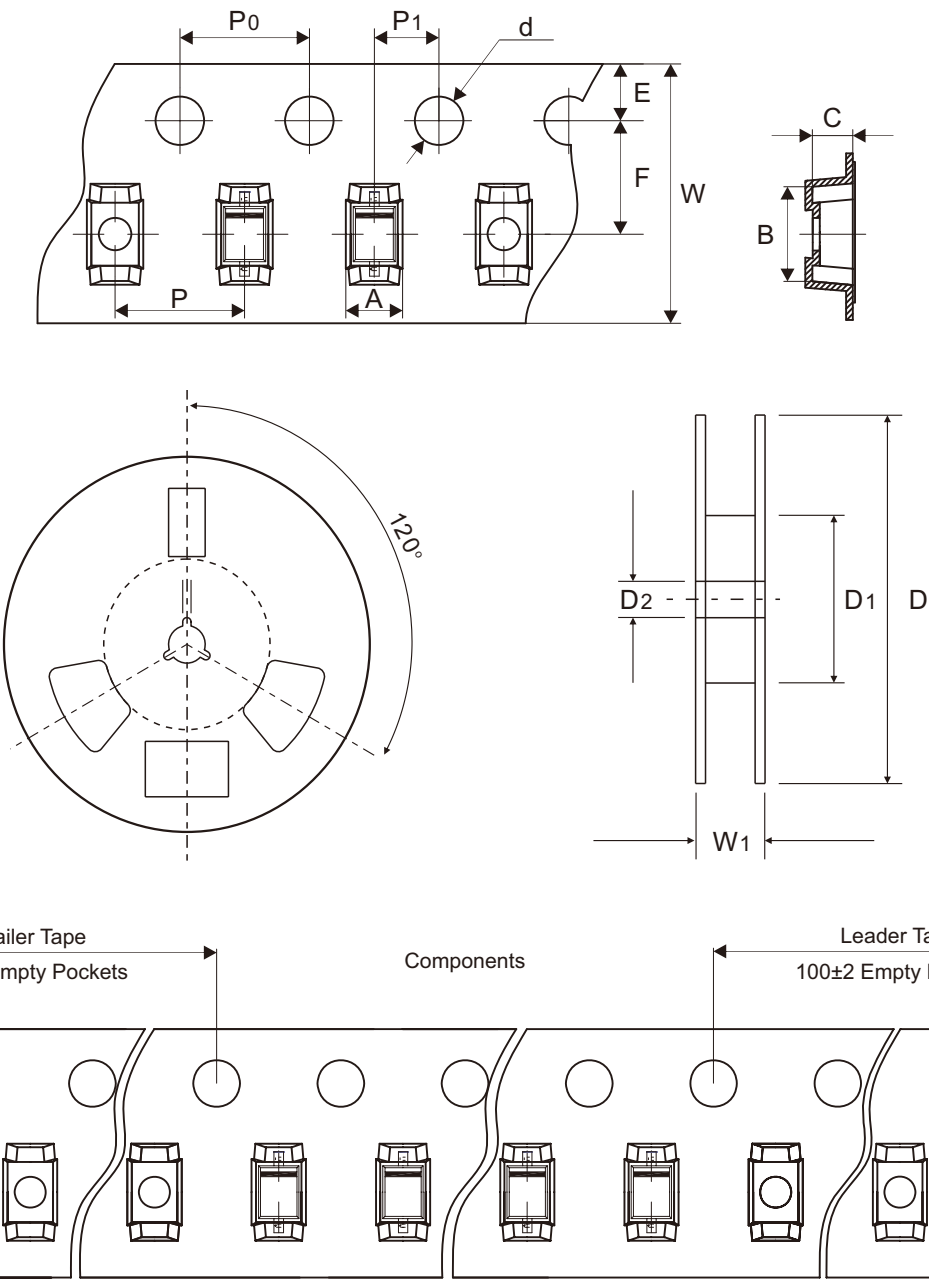


Fig.4 - Reverse Characteristics



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.48 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 + 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.058 ± 0.002	0.130 ± 0.002	0.049 ± 0.002	0.059 + 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

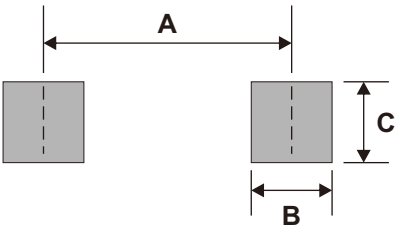
Part Number	Marking Code
CDBV140-HF	SL



■ = Cathode band
Solid dot = Halogen Free

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7