

CDBV220-HF

Forward current: 2.0A

Reverse voltage: 20V

RoHS Device

Halogen Free



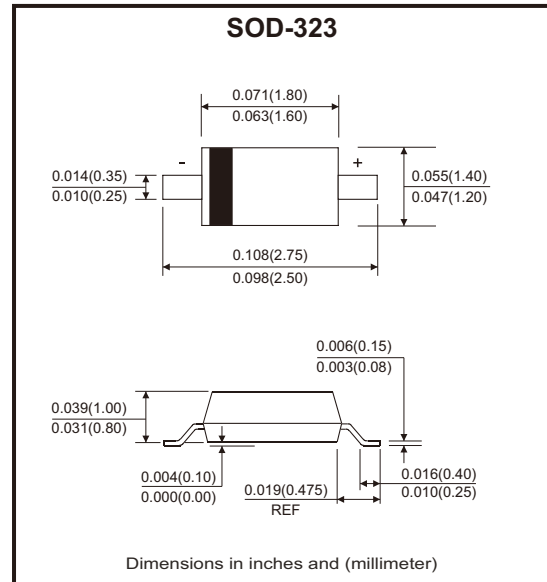
Features

- Low forward voltage drop.
- Very small SMD package.

Mechanical Data

- Case: SOD-323, molded plastic.
- Polarity: Indicated by cathode end.

Circuit Diagram



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

Parameter	Symbol	CDBV220-HF	Unit
Peak repetitive reverse voltage	V_{RRM}	20	V
Working peak reverse voltage	V_{RWM}		
RMS reverse voltage	$V_{R(RMS)}$	14	V
Forward current (Note 3)	I_F	2	A
Non-repetitive peak forward surge current @ t=8.3ms	I_{FSM}	9	A
Power dissipation (Note 1) (Note 2)	P_D	250	mW
		480	
Thermal resistance from junction to ambient (Note 1) (Note 2)	$R_{\theta JA}$	400	°C/W
		208	
Operating junction temperature range	T_J	-40 ~ +125	°C
Storage temperature range	T_{STG}	-55 ~ +150	°C

Notes: 1. Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

2. Device mounted on an FR4 PCB with copper pad 10 x 10 mm.

3. Pulse test: $t_p \leq 300 \mu s$; $\delta \leq 0.02$.

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

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	$I_R = 1mA$	$V_{(BR)}$	20		V
Reverse current	$V_R = 10V$	I_R		80	μA
	$V_R = 20V$			100	
Forward voltage (Note 1)	$I_F = 1A$	V_F		0.45	V
	$I_F = 2A$			0.55	
Total capacitance	$V_R = 4V, f = 1MHz$	C_{tot}		120	pF

Notes: 1. Pulse test: $t_p \leq 300 \mu s$; $\delta \leq 0.02$.

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

REV:A

Rating and Characteristic Curves (CDBV220-HF)

Fig.1 - Power Derating Curve

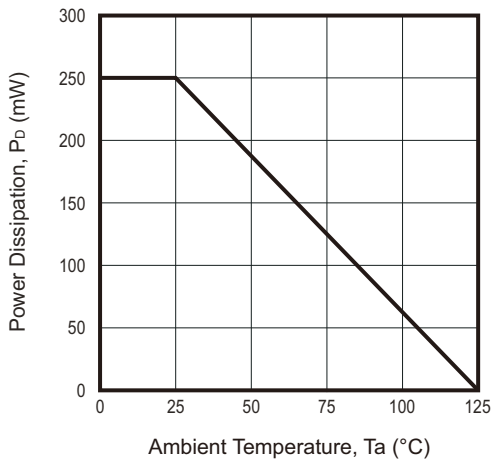


Fig.2 - Capacitance Characteristics

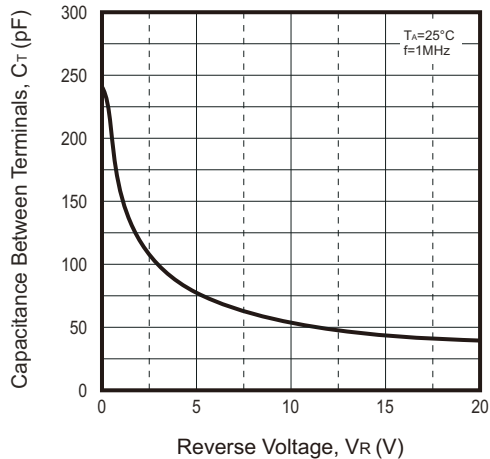


Fig.3 - Forward Characteristics

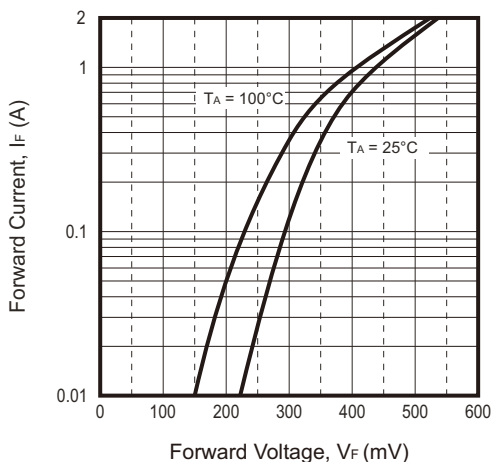
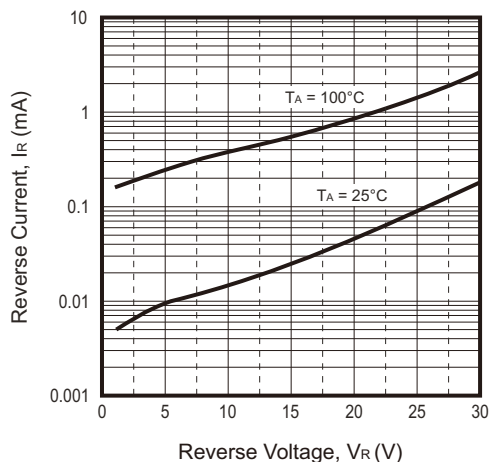
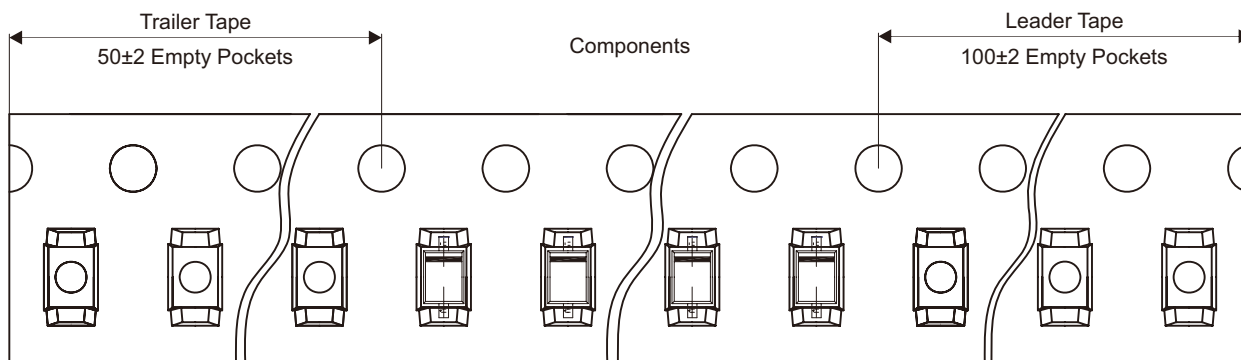
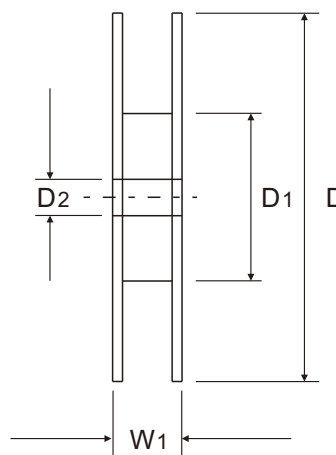
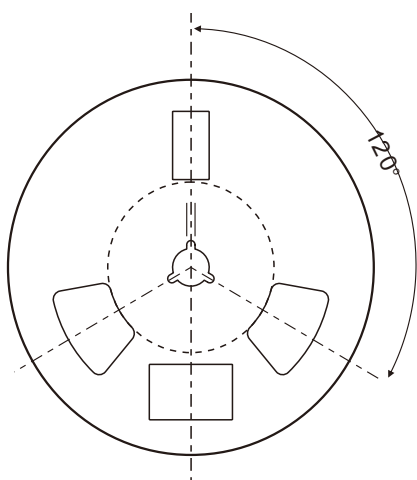
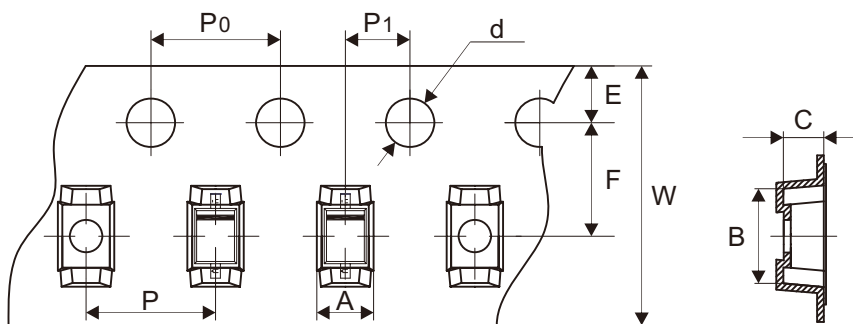


Fig.4 - Reverse Characteristics



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

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Marking Code

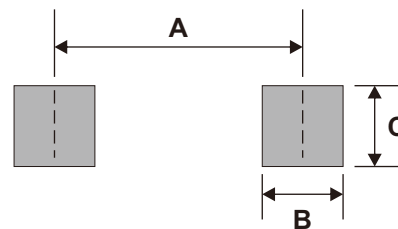
Part Number	Marking Code
CDBV220-HF	SH



 = 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



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

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