

## CDBV220-HF

Forward current: 2.0A

Reverse voltage: 20V

RoHS Device

Halogen Free



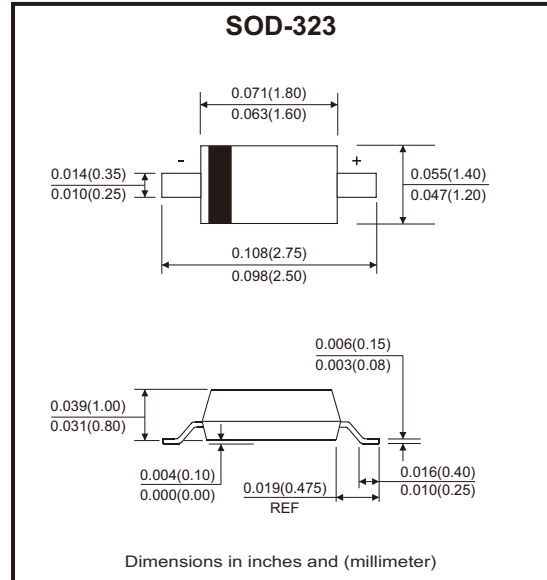
### Features

- 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	$\mu A$
	$V_R = 20V$			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

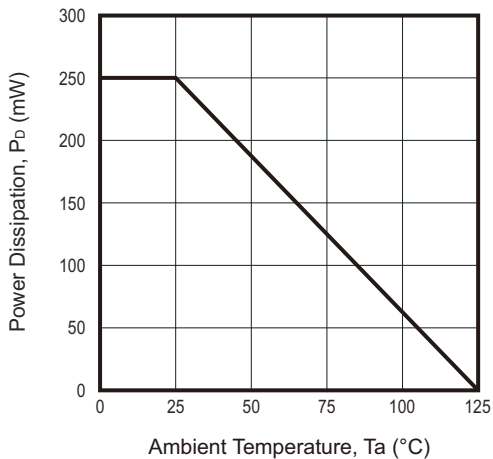


Fig.2 - Capacitance Characteristics

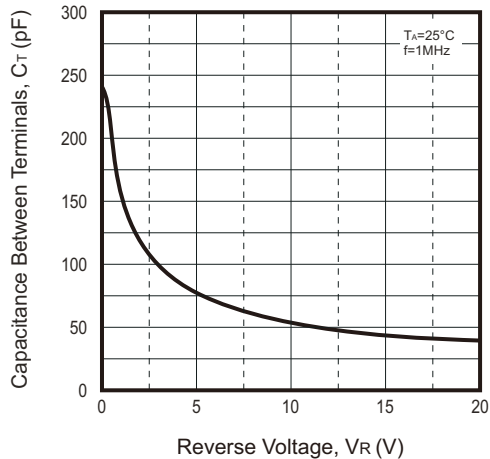


Fig.3 - Forward Characteristics

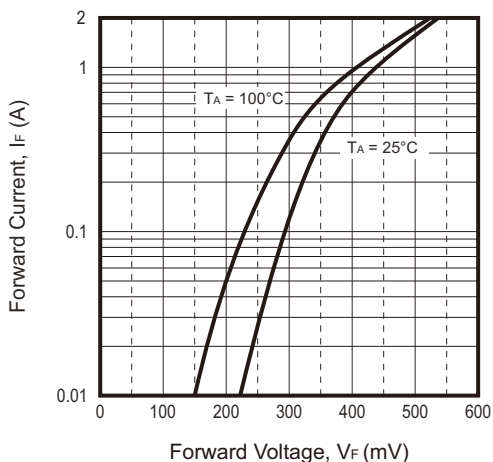
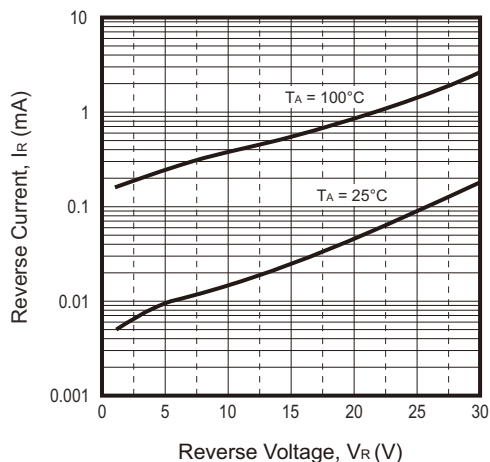
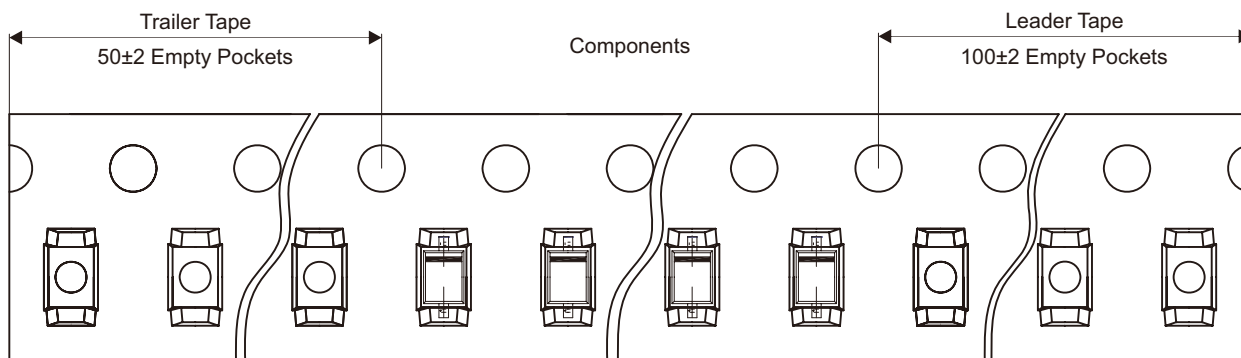
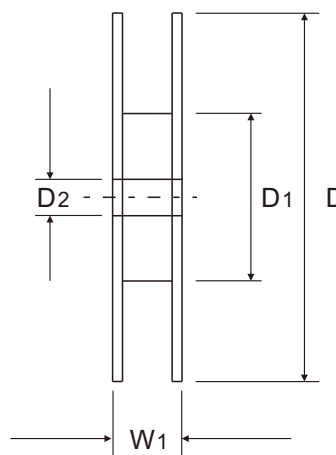
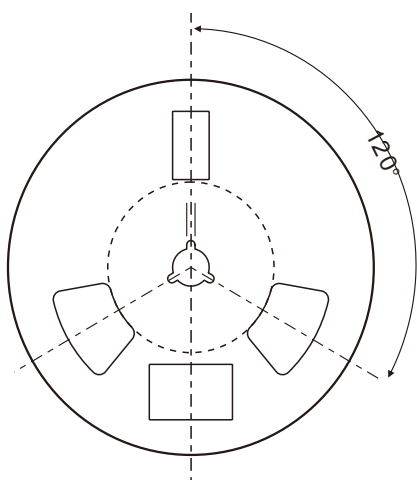
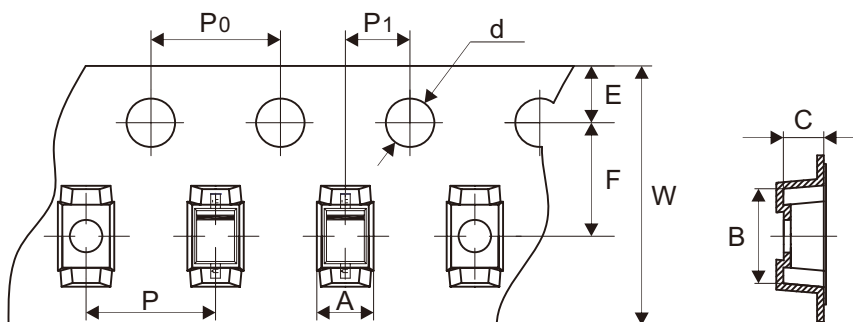


Fig.4 - Reverse Characteristics



## Reel Taping Specification



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

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

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