

CDBV220-G

Forward current: 2.0A
Reverse voltage: 20V
RoHS Device



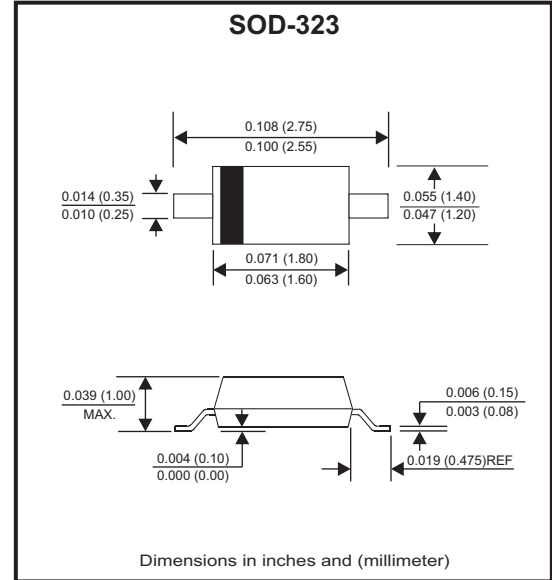
Features

- Low Forward Voltage Drop.
- Very Small SMD Package.

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

Note: (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.

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

Note: (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-G)

Fig.1 - Power Derating Curve

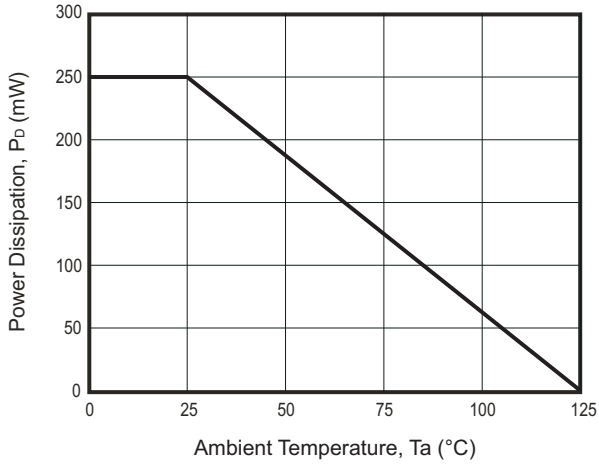


Fig.2 - Capacitance Characteristics

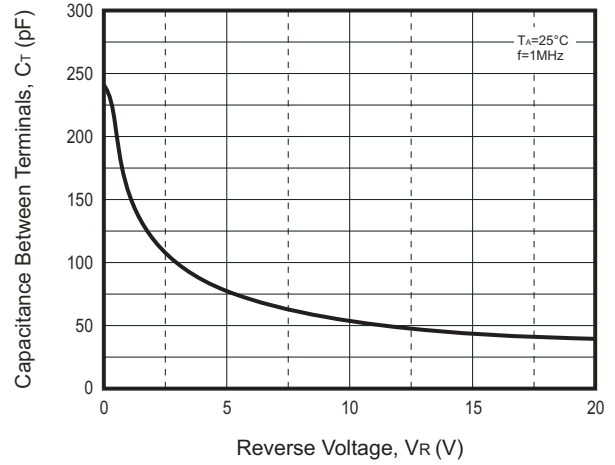


Fig.3 - Forward Characteristics

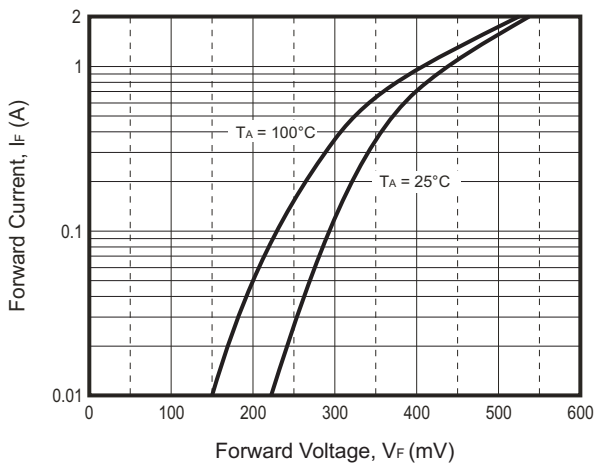
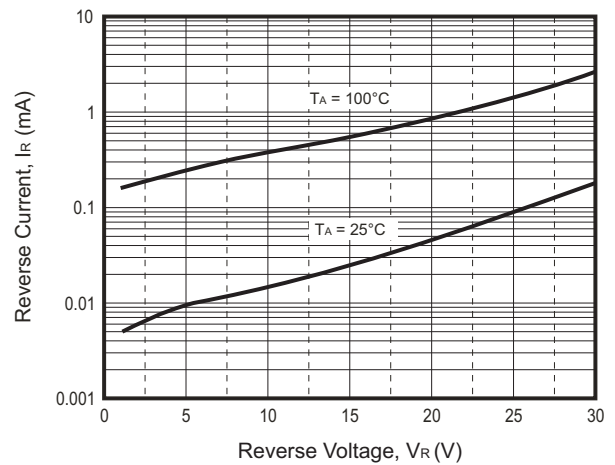
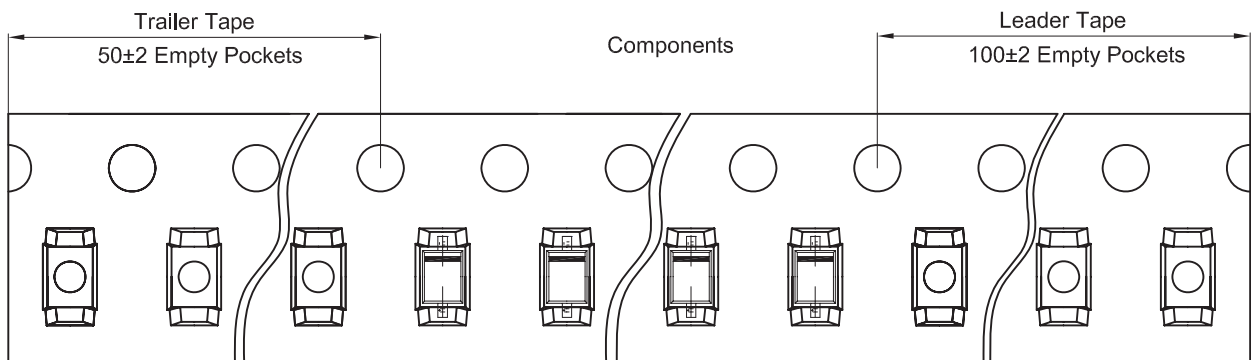
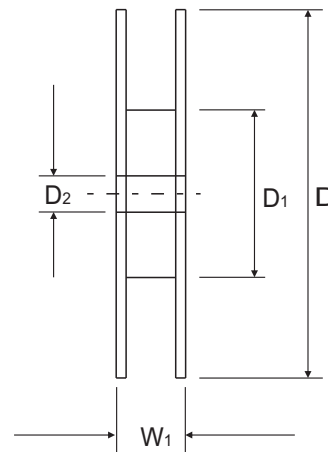
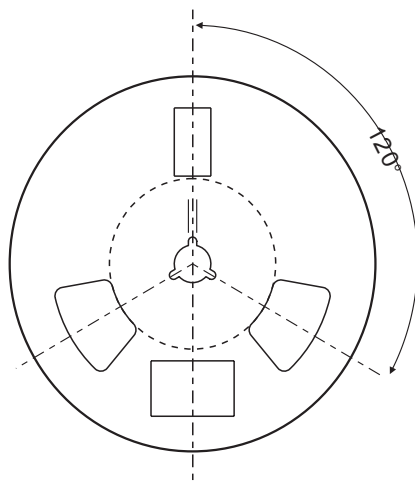
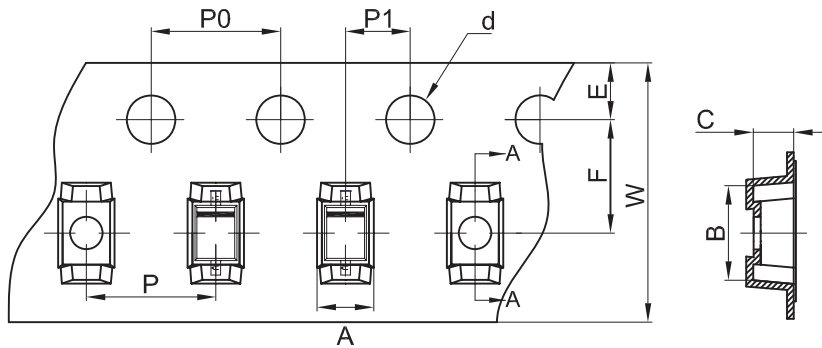


Fig.4 - Reverse Characteristics



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 ± 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	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 ± 0.012 / - 0.004	0.484 ± 0.039

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REV: A

Marking Code

Part Number	Marking Code
CDBV220-G	SH

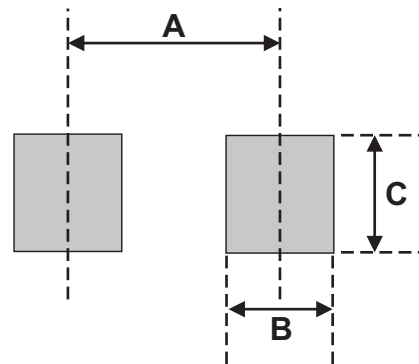


XX = Product type marking code

| = The marking bar indicates the cathode.

Suggested PAD Layout

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



Note:

- 1.General tolerance: $\pm 0.05\text{mm}$.
- 2.The pad layout is for reference purposes only.

Standard Packaging

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