

SMD Zener Diode

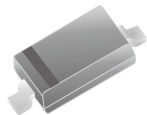


CZRV5223B-G Thru. CZRV5256B-G

Voltage: 2.7 to 30 Volts

Power: 200 mWatts

RoHS Device

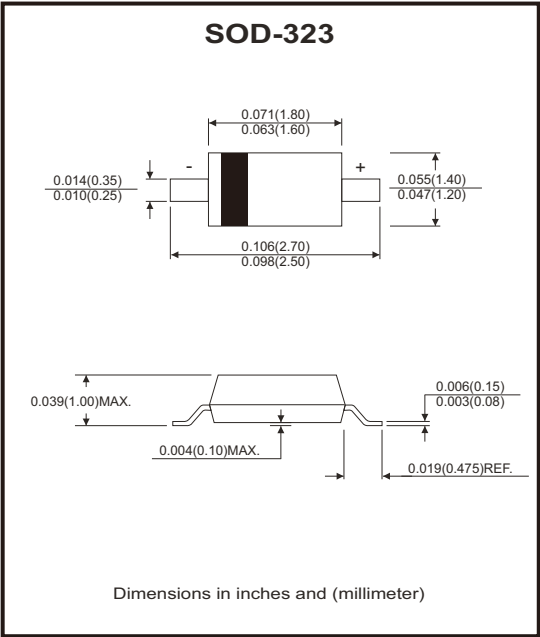


Features

- For surface mounted applications.
- 200mW power dissipation.
- Ideally suited for automated assembly processes.
- Pb free product.

Mechanical data

- Case: SOD-323, Molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode band.
- Weight: 0.008 grams (approx.).



Circuit Diagram



Maximum Rating and Electrical Characteristics

Parameter	Symbol	Value	Unit
Forward voltage (Note 2) @ $I_F = 10\text{mA}$	V_F	0.9	V
Power dissipation (Note 1)	P_d	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Operating junction and storage temperature range	T_j, T_{STG}	-65 to +150	$^{\circ}\text{C}$

Notes: 1. Device mounted on ceramic PCBS; 7.6mm*9.4mm*0.87mm with pad areas 25mm²

2. Tested with pulses, $T_p \leq 1.0\text{ms}$.

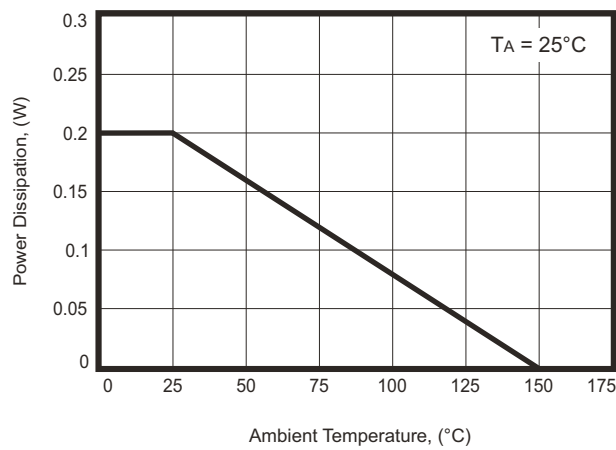
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Electrical Characteristics (@Ta = 25°C unless otherwise specified)

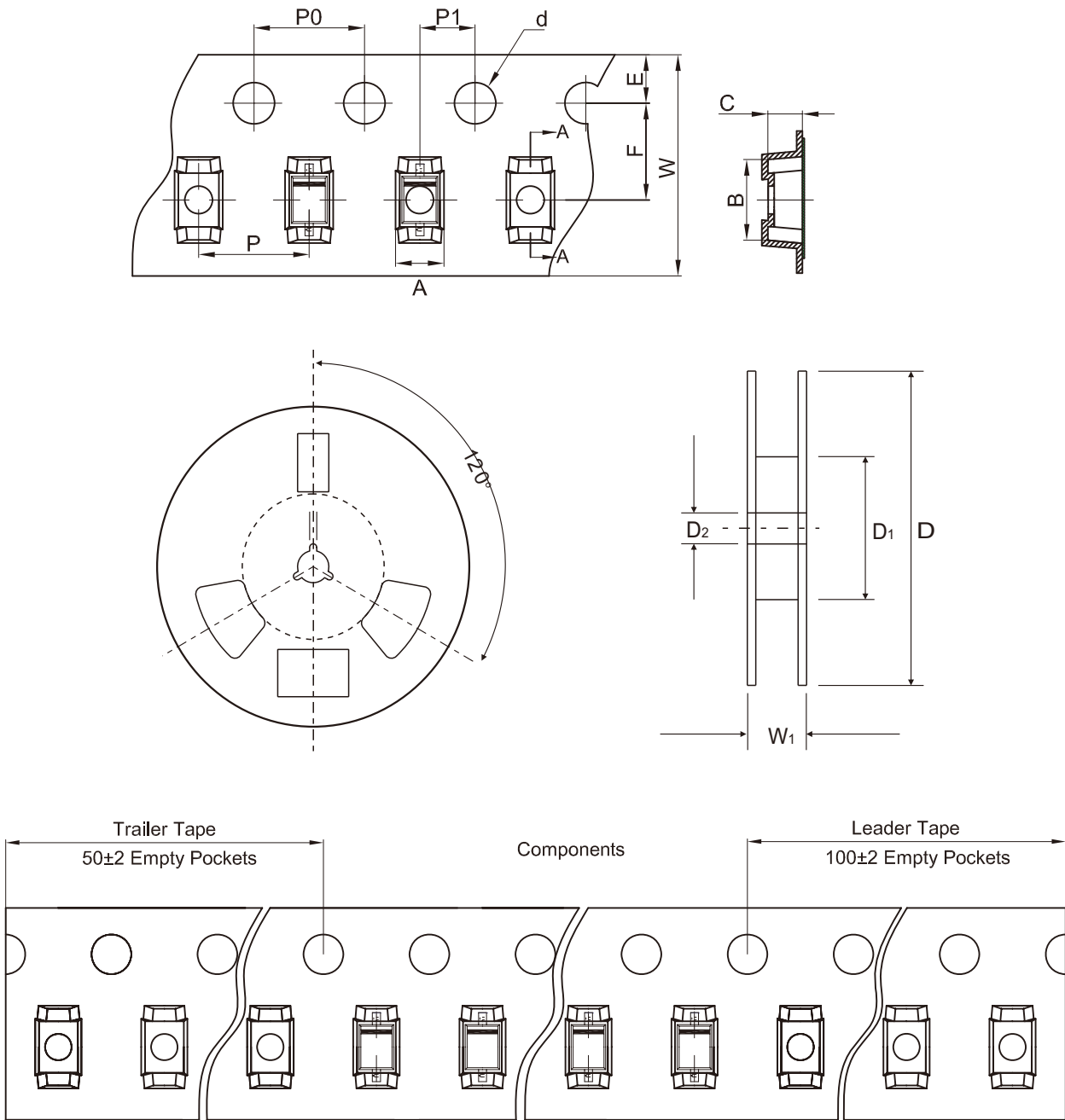
Part Number	Zener Voltage			Operating resistance		Rising operating resistance		Reverse current		Marking Code
	V _Z (V)@I _{ZT}			Z _{ZT} (Ohm)		Z _{ZK} (Ohm)		I _R (μA)		
	Min	Nom	Max	Max	I _{ZT} (mA)	Max	I _{ZK} (mA)	Max	V _R (V)	
CZRV5223B-G	2.57	2.7	2.84	30	20	1300	0.25	75	1.0	C3
CZRV5225B-G	2.85	3.0	3.15	30	20	1600	0.25	50	1.0	C5
CZRV5226B-G	3.14	3.3	3.47	28	20	1600	0.25	25	1.0	G1
CZRV5227B-G	3.42	3.6	3.78	24	20	1700	0.25	15	1.0	G2
CZRV5228B-G	3.71	3.9	4.10	23	20	1900	0.25	10	1.0	G3
CZRV5229B-G	4.09	4.3	4.52	22	20	2000	0.25	5.0	1.0	G4
CZRV5230B-G	4.47	4.7	4.94	19	20	1900	0.25	5.0	2.0	G5
CZRV5231B-G	4.85	5.1	5.36	17	20	1600	0.25	5.0	2.0	E1
CZRV5232B-G	5.32	5.6	5.88	11	20	1600	0.25	5.0	3.0	E2
CZRV5233B-G	5.70	6.0	6.30	7	20	1600	0.25	5.0	3.5	E3
CZRV5234B-G	5.89	6.2	6.51	7	20	1000	0.25	5.0	4.0	E4
CZRV5235B-G	6.46	6.8	7.14	5	20	750	0.25	3.0	5.0	E5
CZRV5236B-G	7.13	7.5	7.88	6	20	500	0.25	3.0	6.0	F1
CZRV5237B-G	7.79	8.2	8.61	8	20	500	0.25	3.0	6.5	F2
CZRV5238B-G	8.27	8.7	9.14	8	20	600	0.25	3.0	6.5	F3
CZRV5239B-G	8.65	9.1	9.56	10	20	600	0.25	3.0	7.0	F4
CZRV5240B-G	9.50	10	10.50	17	20	600	0.25	3.0	8.0	F5
CZRV5241B-G	10.45	11	11.55	22	20	600	0.25	2.0	8.4	H1
CZRV5242B-G	11.40	12	12.60	30	20	600	0.25	1.0	9.1	H2
CZRV5243B-G	12.35	13	13.65	13	9.5	600	0.25	0.5	9.9	H3
CZRV5244B-G	13.30	14	14.70	15	9.0	600	0.25	0.1	10.0	H4
CZRV5245B-G	14.25	15	15.75	16	8.5	600	0.25	0.1	11.0	H5
CZRV5246B-G	15.20	16	16.80	17	7.8	600	0.25	0.1	12.0	J1
CZRV5248B-G	17.10	18	18.90	21	7.0	600	0.25	0.1	14.0	J3
CZRV5250B-G	19.00	20	21.00	25	6.2	600	0.25	0.1	15.0	J5
CZRV5251B-G	20.90	22	23.10	29	5.6	600	0.25	0.1	17.0	K1
CZRV5252B-G	22.80	24	25.20	33	5.2	600	0.25	0.1	18.0	K2
CZRV5253B-G	23.75	25	26.25	35	5.0	600	0.25	0.1	19.0	K3
CZRV5254B-G	25.65	27	28.35	41	5.0	600	0.25	0.1	21.0	K4
CZRV5255B-G	26.60	28	29.40	44	4.5	600	0.25	0.1	21.0	K5
CZRV5256B-G	28.50	30	31.50	49	4.2	600	0.25	0.1	23.0	M1

Rating and Characteristic Curves (CZRV5223B-G Thru. CZRV5256B-G)

Fig.1- Power Derating VS Ambient Temperature



Reel Taping Specification



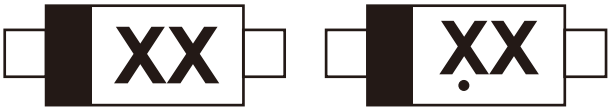
SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.10	2.90 ± 0.10	1.25 ± 0.10	1.50 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.0 ± 0.20
	(inch)	0.058 ± 0.004	0.114 ± 0.004	0.049 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-323	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 ± 0.10	8.00 + 0.30 / - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 + 0.011 / - 0.004	0.374 ± 0.039

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Marking Code

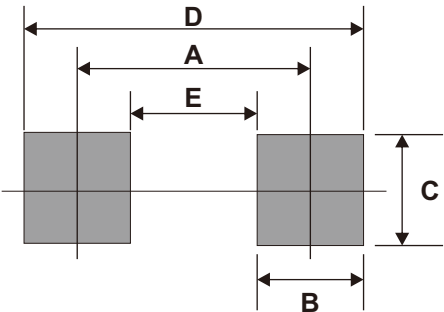
Part Number	Marking Code
CZRV52xxB-G Series	See Page 2



■ = Cathode band
Solid dot = Control code
xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.33	0.092
B	0.70	0.028
C	0.70	0.028
D	3.03	0.119
E	1.63	0.064



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