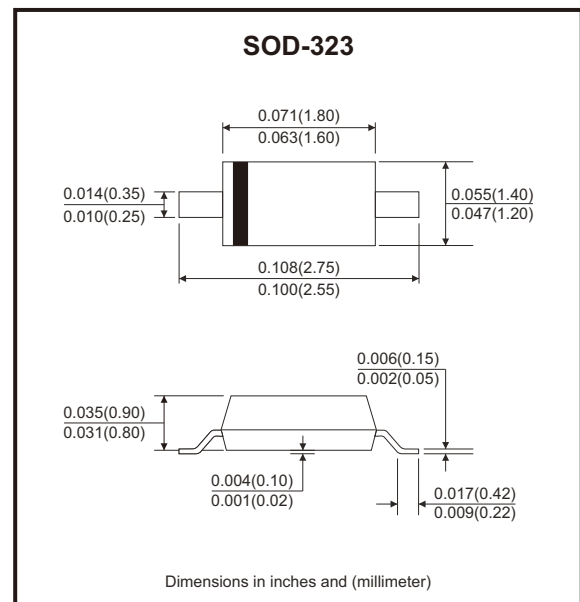


CZRV52B2V4-HF Thru. CZRV52B51-HF**Voltage: 2.4 to 51 V****Power: 200 mW****RoHS Device****Halogen Free****Features**

- large selection of zener voltages: 2.4V~51V
- Tight voltage tolerance: $\pm 2\%$.
- Ultra low-profile package well suited for automated assembly.

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode line denotes the cathode end.
- Mounting position: Any

**Circuit Diagram****Maximum Ratings** (at $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward voltage @ $I_F=10\text{mA}$	V_F	0.9	V
Power dissipation	P_D	200	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Thermal resistance, junction to case	$R_{\theta JC}$	337	$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

Notes: 1. These ratings are limiting values above which the serviceability of the diodes may be impaired.

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

Part Number	Zener voltage				Max. Zener impedance			Temperature coefficient		Max. Reverse current		Marking code
	V _Z (V)			@I _Z	Z _{zT} @I _{zT}	Z _{ZK}	@I _{ZK}	@I _{zT} T _C (mV/°C)	I _R	@V _R		
	Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	Min	Max	(μA)	(V)	
CZRV52B2V4-HF	2.35	2.4	2.45	5	94	564	1.0	-3.5	0	45	1.0	0Z , 2WX
CZRV52B2V7-HF	2.65	2.7	2.75	5	94	564	1.0	-3.5	0	18	1.0	1Z , 2W1
CZRV52B3V0-HF	2.94	3.0	3.06	5	89	564	1.0	-3.5	0	9	1.0	2Z , 2W2
CZRV52B3V3-HF	3.23	3.3	3.37	5	89	564	1.0	-3.5	0	4.5	1.0	3Z , 2W3
CZRV52B3V6-HF	3.53	3.6	3.67	5	84	564	1.0	-3.5	0	4.5	1.0	4Z , 2W4
CZRV52B3V9-HF	3.82	3.9	3.98	5	84	564	1.0	-3.5	0	2.7	1.0	5Z , 2W5
CZRV52B4V3-HF	4.21	4.3	4.39	5	84	564	1.0	-3.5	0	2.7	1.0	6Z , 2W6
CZRV52B4V7-HF	4.61	4.7	4.79	5	75	564	1.0	-3.5	0.2	2.7	2.0	7Z , 2W7
CZRV52B5V1-HF	5.00	5.1	5.20	5	56	470	1.0	-2.7	1.2	1.8	2.0	8Z , 2W8
CZRV52B5V6-HF	5.49	5.6	5.71	5	37	451	1.0	-2.0	2.5	0.9	2.0	9Z , 2W9
CZRV52B6V2-HF	6.08	6.2	6.32	5	9	376	1.0	0.4	3.7	2.7	4.0	AZ , 2WA
CZRV52B6V8-HF	6.66	6.8	6.94	5	14	141	1.0	1.2	4.5	1.8	4.0	BZ , 2WB
CZRV52B7V5-HF	7.35	7.5	7.65	5	14	75	1.0	2.5	5.3	0.9	5.0	CZ , 2WC
CZRV52B8V2-HF	8.04	8.2	8.36	5	14	75	1.0	3.2	6.2	0.63	5.0	DZ , 2WD
CZRV52B9V1-HF	8.92	9.1	9.28	5	14	94	1.0	3.8	7.0	0.45	6.0	EZ , 2WE
CZRV52B10-HF	9.80	10	10.20	5	18	141	1.0	4.5	8.0	0.18	7.0	FZ , 2WF
CZRV52B11-HF	10.78	11	11.22	5	18	141	1.0	5.4	9.0	0.09	8.0	GZ , 2WG
CZRV52B12-HF	11.76	12	12.24	5	23	141	1.0	6.0	10.0	0.09	8.0	HZ , 2WH
CZRV52B13-HF	12.74	13	13.26	5	28	160	1.0	7.0	11.0	0.09	8.0	JZ , 2WI
CZRV52B15-HF	14.70	15	15.30	5	28	188	1.0	9.2	13.0	0.045	10.5	KZ , 2WJ
CZRV52B16-HF	15.68	16	16.32	5	37	188	1.0	10.4	14.0	0.045	11.2	LZ , 2WK
CZRV52B18-HF	17.64	18	18.36	5	42	212	1.0	12.4	16.0	0.045	12.6	MZ , 2WL
CZRV52B20-HF	19.60	20	20.40	5	51	212	1.0	14.4	18.0	0.045	14.0	NZ , 2WM
CZRV52B22-HF	21.56	22	22.44	5	51	235	1.0	16.4	20.0	0.045	15.4	PZ , 2WN
CZRV52B24-HF	23.52	24	24.48	5	65	235	1.0	18.4	22.0	0.045	16.8	RZ , 2WO
CZRV52B27-HF	26.46	27	27.54	2	75	282	0.5	21.4	25.3	0.045	18.9	SZ , 2WP
CZRV52B30-HF	29.40	30	30.60	2	75	282	0.5	24.4	29.4	0.045	21.0	TZ , 2WQ
CZRV52B33-HF	32.34	33	33.66	2	75	306	0.5	27.4	33.4	0.045	23.0	UZ , 2WR
CZRV52B36-HF	35.28	36	36.72	2	84	329	0.5	30.4	37.4	0.045	25.2	VZ , 2WS
CZRV52B39-HF	38.22	39	39.78	2	122	329	0.5	33.4	41.2	0.045	27.3	WZ• , 2WT
CZRV52B43-HF	42.14	43	43.86	2	141	353	0.5	37.6	46.6	0.045	30.1	XZ , 2WU
CZRV52B47-HF	46.06	47	47.94	2	160	353	0.5	42.0	51.8	0.045	33.0	YZ , 2WV
CZRV52B51-HF	49.98	51	52.02	2	169	376	0.5	46.6	57.2	0.045	35.7	ZZ , 2X1

Typical Rating and Characteristic Curves (CZRV52Bxxx-HF Series)

Fig.1 - Power Dissipation Curve

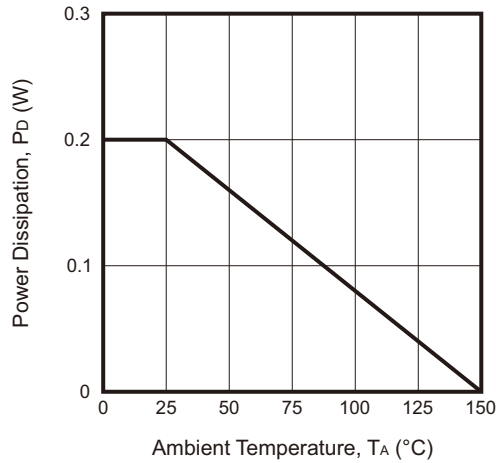


Fig.2 - Typical Zener Breakdown Capacitance

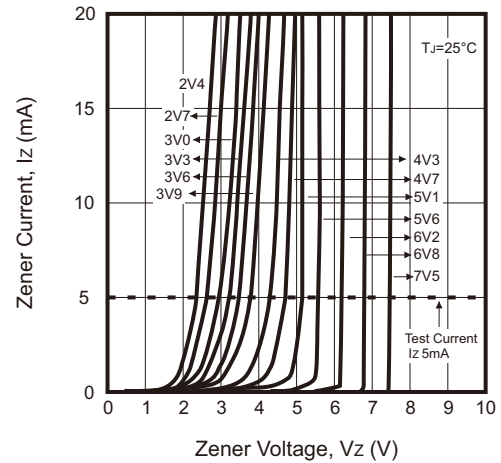


Fig.3 - Typical Zener Breakdown Capacitance

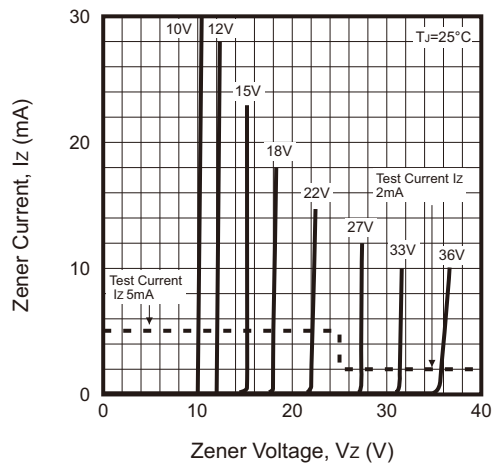


Fig.4 - Typical Zener Breakdown Capacitance

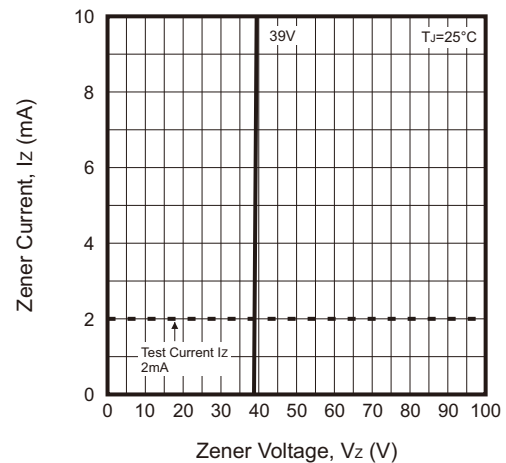


Fig.5 - Typical Temperature Coefficient of Zener Voltage

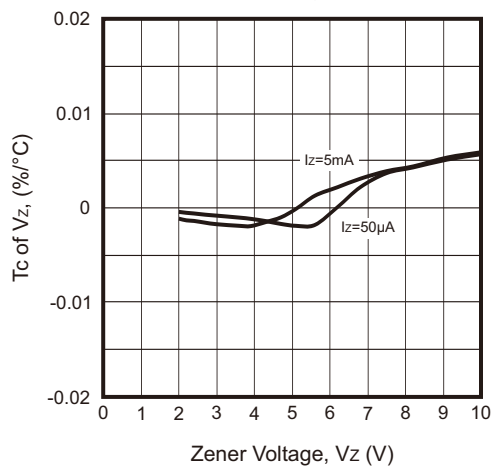
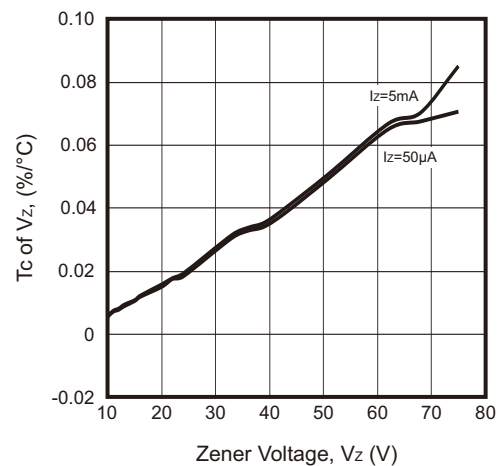
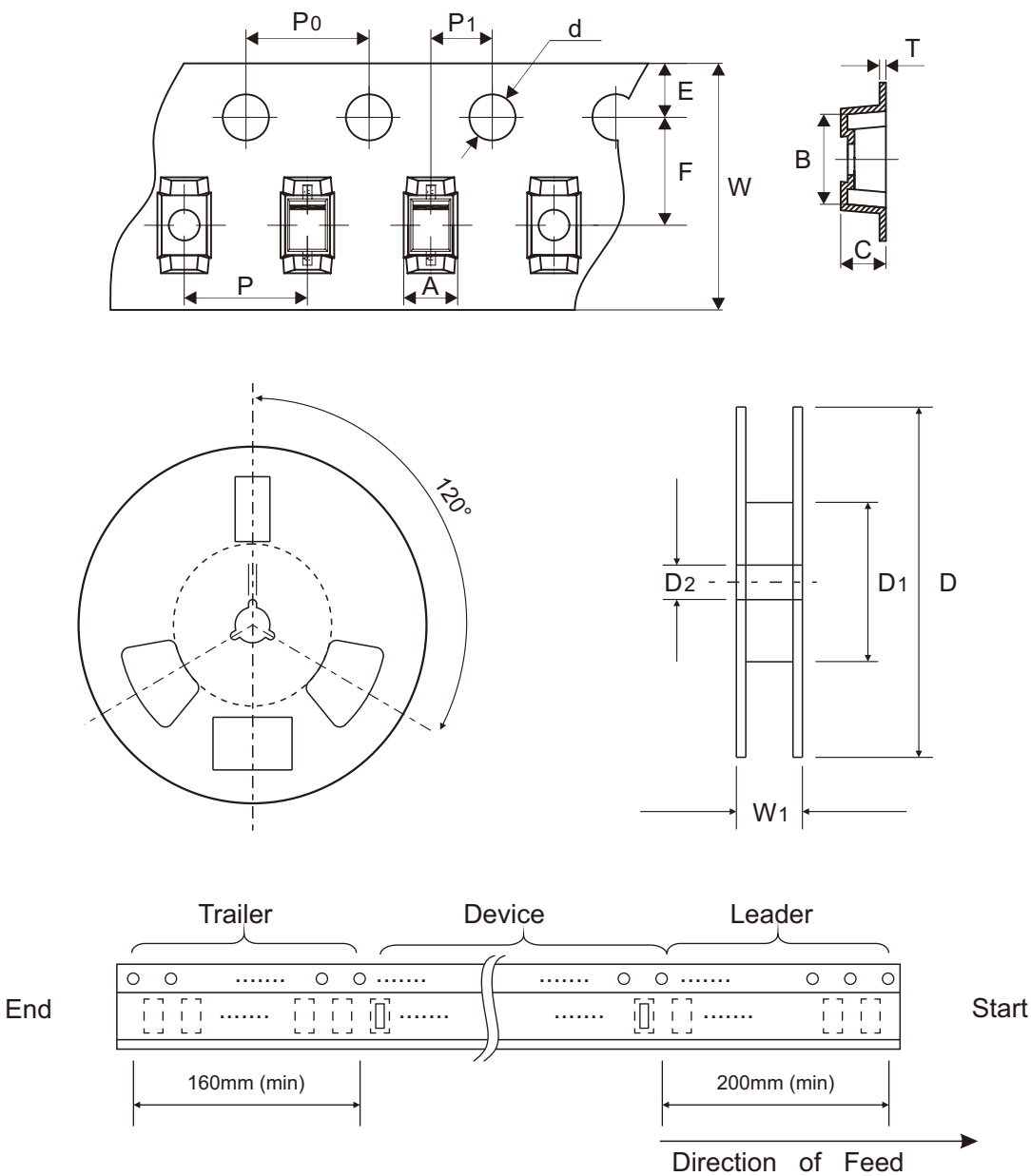


Fig.6 - Typical Temperature Coefficient of Zener Voltage



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 + 0.10 - 0.00	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.057 ± 0.002	0.130 ± 0.002	0.049 ± 0.002	0.059 + 0.004 - 0.000	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOD-323	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.25 ± 0.02	8.00 + 0.30 - 0.10	12.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.010 ± 0.001	0.315 + 0.012 - 0.004	0.492 ± 0.039

Marking Code

Part Number	Marking Code
CZRV52Bxxx-HF Series	See Page 2

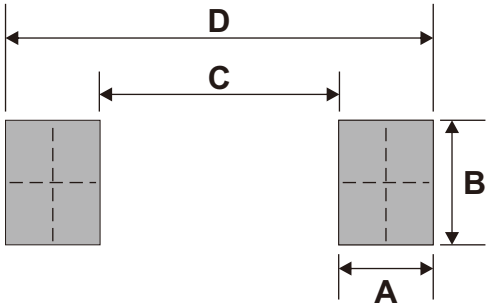


XX/ XX· / XXX = Product type marking code

 = Cathode band

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	0.63	0.025
B	0.83	0.033
C	1.60	0.063
D	2.85	0.112



Standard Packaging

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