



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

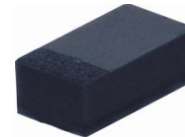
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



CZRFR2V4B-HF Thru CZRFR39VB-HF

Voltage 2.4 to 39 Volts
 Power 200 mWatts
 RoHS Device
 Halogen Free

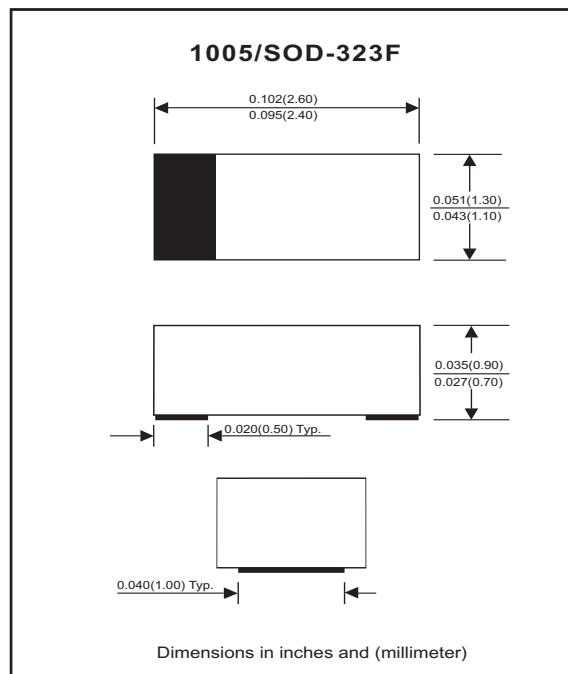


Features

- 200mW Power Dissipation.
- High Voltages from 2.4 ~ 39 V.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Constant voltage control.
- Pb free product.

Mechanical data

- Case: 1005/SOD-323F Standard package
Molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750,method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.006 gram(approx.).



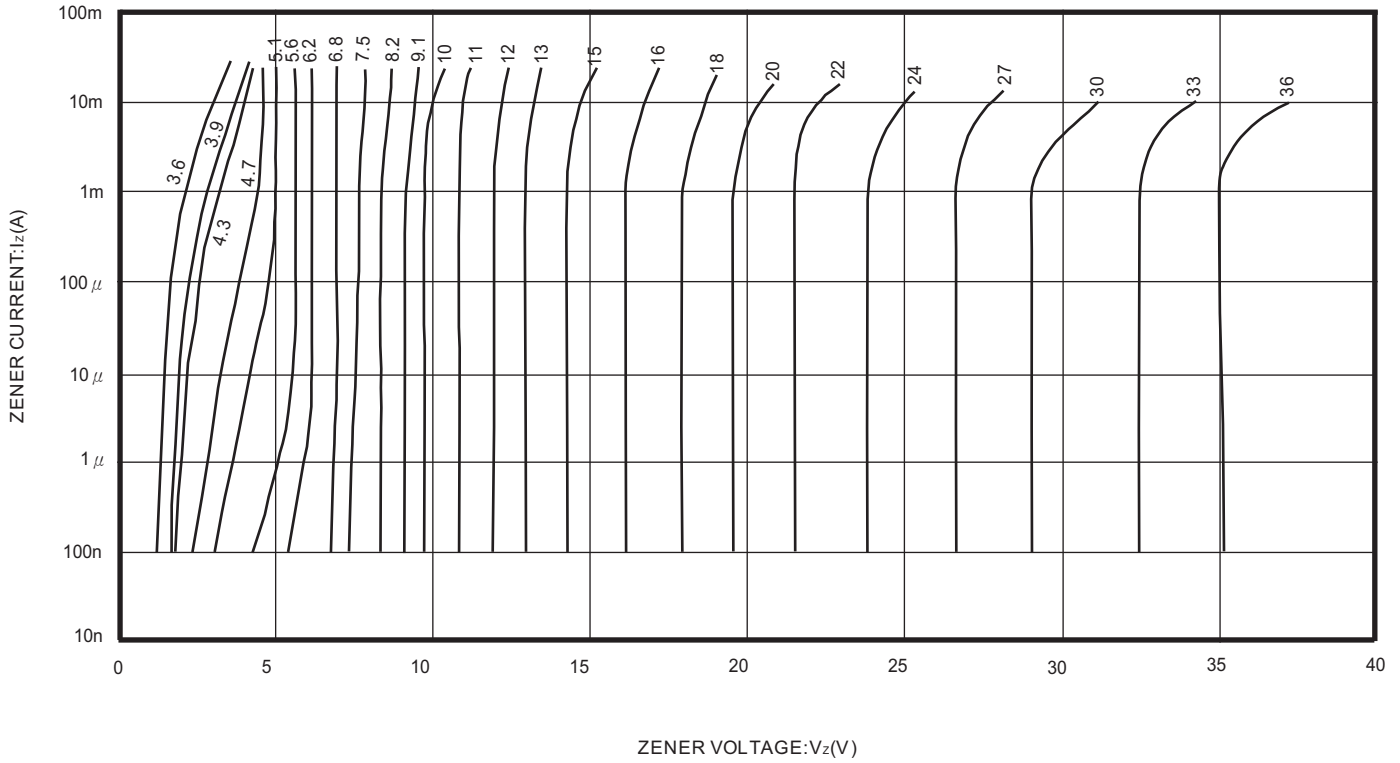
Maximum Rating AND Electrical Characteristics

Parameter	Symbol	Value	Unit
Maximum Forward Voltage Drop at $I_F = 10 \text{ mA}$	V_F	0.9	V
Maximum Power Dissipation at 25 C°	P_D	200	mW
Forward current , surge peak 8.3 ms single half sine-wave superimposed on rate load(JEDEC method)	I_{FSM}	2.0	A
Peak ESD voltage capability (IEC 61000-4-2)	V_{PV}	8	kV
Operating Junction and Storage Temperature Range	T_J	-55 to +125	$^\circ\text{C}$

Electrical Characteristics(Ta = 25C) °

Part Number	Marking Code	Zener Voltage			Operating resistance		Rising operating Resistance		Reverse current	
		Vz(V)			ZZT(Ohm)		ZZK(Ohm)		IR(uA)	
		Min	Max	Iz(mA)	Max	Iz(mA)	Max	Iz(mA)	Max	VR(V)
CZRFR2V4B-HF	U2	2.34	2.46	5	100	5	1800	0.25	100	1
CZRFR2V7B-HF	U3	2.63	2.77	5	100	5	1900	0.25	75	1
CZRFR3V0B-HF	U4	2.93	3.08	5	95	5	2000	0.25	50	1
CZRFR3V3B-HF	U5	3.22	3.38	5	95	5	2200	0.25	25	1
CZRFR3V6B-HF	U6	3.51	3.69	5	90	5	2300	0.25	15	1
CZRFR3V9B-HF	U7	3.80	4.00	5	90	5	2400	0.25	10	1
CZRFR4V3B-HF	U8	4.19	4.41	5	88	5	2500	0.25	5	1
CZRFR4V7B-HF	U9	4.58	4.82	5	70	5	2200	0.25	3	1.5
CZRFR5V1B-HF	UA	4.97	5.23	5	50	5	2050	0.25	2	2
CZRFR5V6B-HF	UB	5.46	5.74	5	25	5	1800	0.25	2	3
CZRFR6V2B-HF	UC	6.05	6.36	5	10	5	1300	0.25	1	4
CZRFR6V8B-HF	UE	6.63	6.97	5	8	5	750	0.25	1	5.2
CZRFR7V5B-HF	UF	7.31	7.69	5	7	5	600	0.25	0.5	6
CZRFR8V2B-HF	UG	8.00	8.41	5	7	5	600	0.25	0.5	6.5
CZRFR9V1B-HF	UH	8.87	9.33	5	10	5	600	0.25	0.1	7
CZRFR10VB-HF	UJ	9.75	10.25	5	15	5	600	0.25	0.1	8
CZRFR11VB-HF	UK	10.73	11.27	5	18	5	600	0.25	0.1	8.4
CZRFR12VB-HF	UM	11.70	12.30	5	22	5	600	0.25	0.1	9.1
CZRFR13VB-HF	UN	12.68	13.32	5	25	5	600	0.25	0.1	9.9
CZRFR15VB-HF	UP	14.63	15.37	5	32	5	600	0.25	0.1	11
CZRFR16VB-HF	UQ	15.60	16.40	5	36	5	600	0.25	0.1	12
CZRFR18VB-HF	UR	17.55	18.45	5	42	5	600	0.25	0.1	14
CZRFR20VB-HF	US	19.50	20.50	5	48	5	600	0.25	0.1	15
CZRFR22VB-HF	UT	21.45	22.55	5	55	5	600	0.25	0.1	17
CZRFR24VB-HF	UU	23.40	24.60	5	62	5	600	0.25	0.1	18
CZRFR27VB-HF	UV	26.33	27.67	5	70	5	600	0.25	0.1	21
CZRFR30VB-HF	UW	29.25	30.75	5	78	5	600	0.25	0.1	23
CZRFR33VB-HF	UX	32.18	33.82	5	88	5	700	0.25	0.1	25
CZRFR36VB-HF	UY	35.10	36.90	5	95	5	700	0.25	0.1	27
CZRFR39VB-HF	UZ	38.03	39.97	5	130	5	800	0.25	0.1	30

RATING AND CHARACTERISTIC CURVES (CZRFR2V4B-HF Thru CZRFR39VB-HF)



ZENER VOLTAGE: V_z (V)
Fig. 1 Zener voltage characteristics

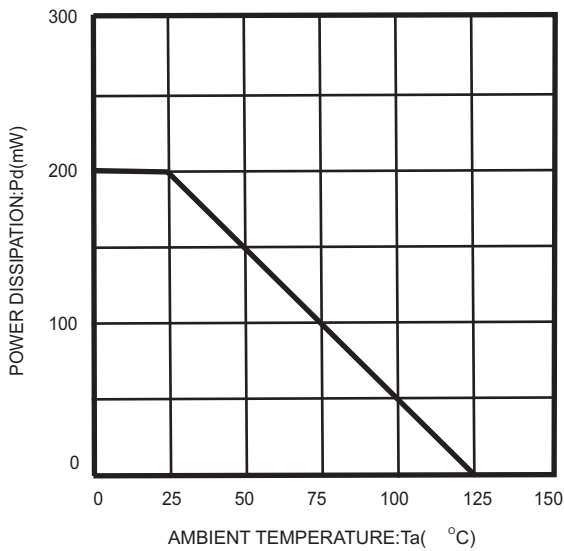


Fig. 2 Derating curve

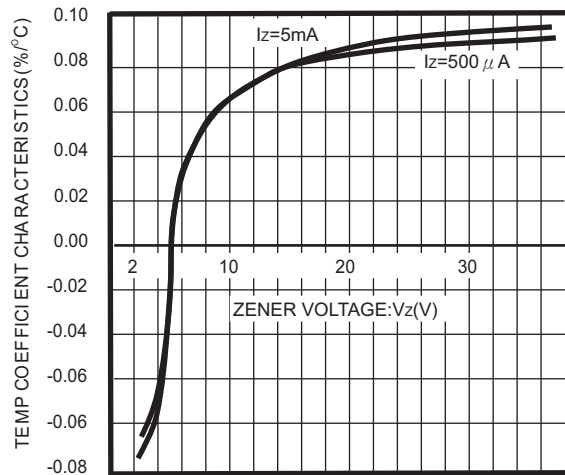
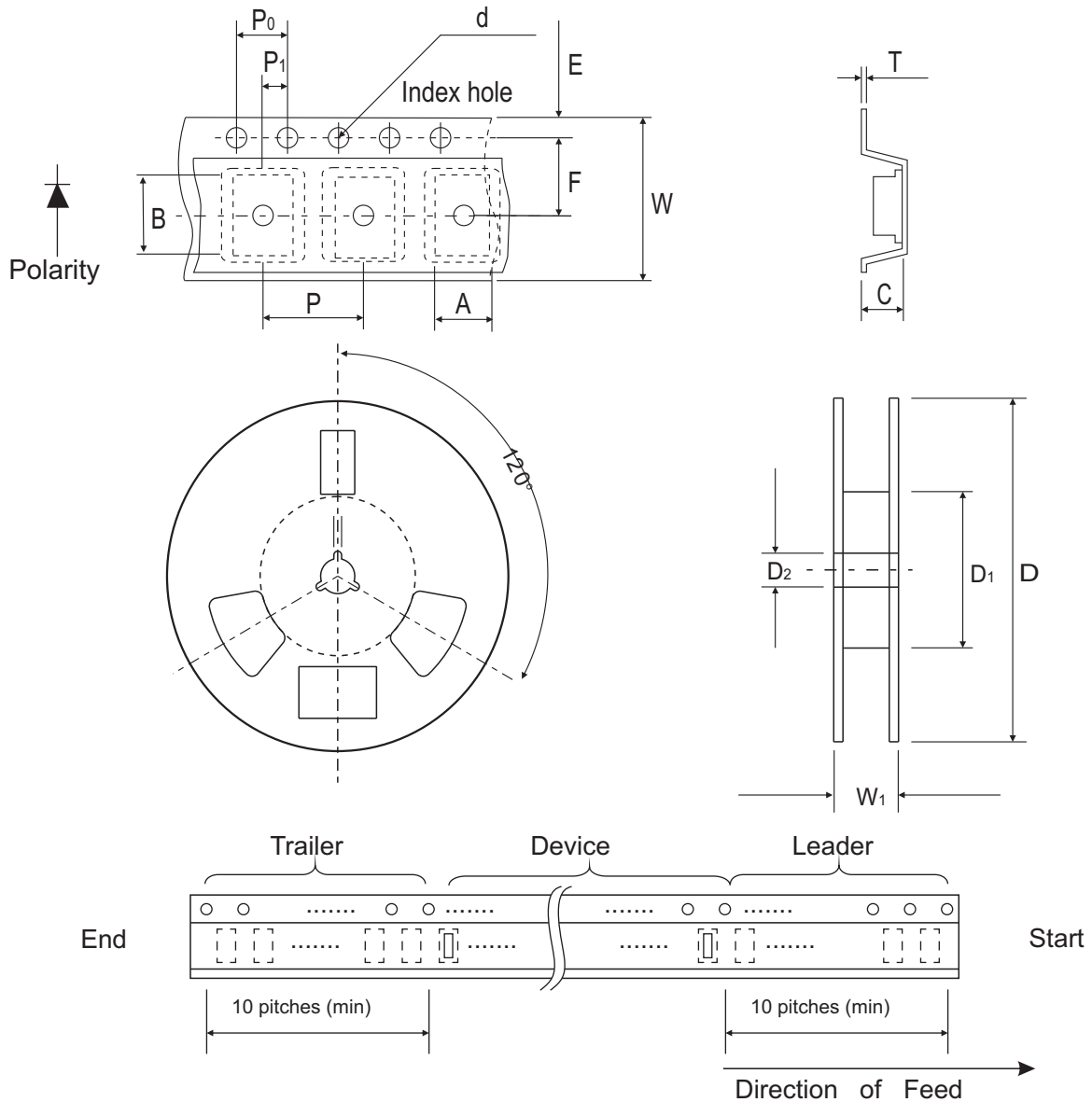


Fig. 3 Zener voltage-temp. Coefficient characteristics

Reel Taping Specification

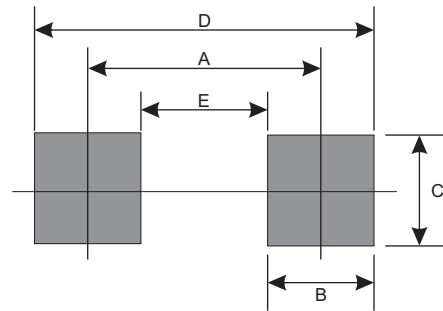


1005 (SOD-323F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.55 ± 0.10	2.65 ± 0.10	1.05 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.061 ± 0.004	0.104 ± 0.004	0.041 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

1005 (SOD-323F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

Suggested PAD Layout

SIZE	1005/SOD-323F	
	(mm)	(inch)
A	2.00	0.079
B	0.70	0.028
C	1.30	0.051
D	2.70	0.106
E	1.30	0.051



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
1005/SOD-323F	4000	7