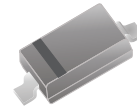


ACZRV52B-HF Series

RoHS Device
Halogen Free



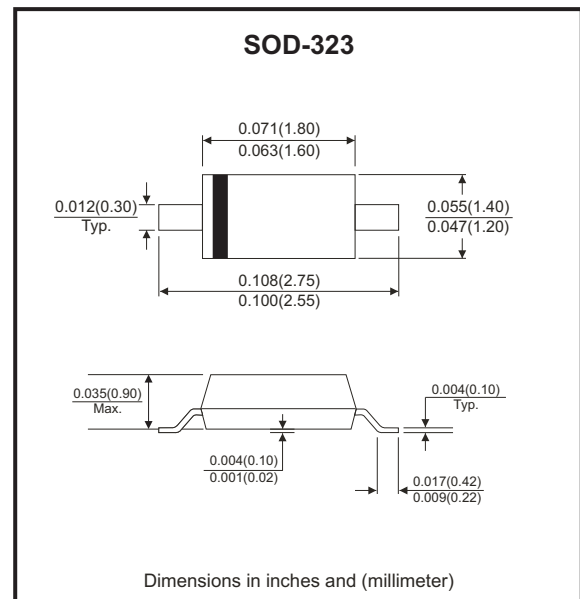
Features

- Wide zener voltage range selection: 3V to 39V
- V_Z Tolerance selection of $\pm 2\%$.
- Ideally suited for automated assembly processes.
- Comply with AEC-Q101

Mechanical data

- Case: Molded plastic, SOT-23
- Mounting position: Any

Circuit diagram



Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward voltage @ I _F =10mA	V _F	0.9	V
Power dissipation	P _D	200	mW
Thermal resistance, junction to ambient air	R _{θJA}	625	°C/W
Junction temperature range	T _J	150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

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

Electrical Characteristics (TA=25°C unless otherwise noted)

Part Number	Zener Voltage				Maximum Zener Impedance			Maximum Reverse Current		Typ. Temp. Coefficient		Marking Code
	V _{ZT}			@ I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK}	@ I _{ZK}	I _R @ V _R		@ I _{ZT} mV/°C		
	Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	Min.	Max.	
ACZRV52B3V0-HF	3.0	2.94	3.06	5.0	95	600	1.0	10	1.0	-3.5	0	2Z
ACZRV52B3V3-HF	3.3	3.23	3.37	5.0	95	600	1.0	5	1.0	-3.5	0	3Z
ACZRV52B3V6-HF	3.6	3.53	3.67	5.0	90	600	1.0	5	1.0	-3.5	0	4Z
ACZRV52B3V9-HF	3.9	3.82	3.98	5.0	90	600	1.0	3	1.0	-3.5	0	5Z
ACZRV52B4V3-HF	4.3	4.21	4.39	5.0	90	600	1.0	3	1.0	-3.5	0	6Z
ACZRV52B4V7-HF	4.7	4.61	4.79	5.0	80	600	1.0	3	2.0	-3.5	0.2	7Z
ACZRV52B5V1-HF	5.1	5.0	5.20	5.0	60	500	1.0	2	2.0	-2.7	1.2	8Z
ACZRV52B5V6-HF	5.6	5.49	5.71	5.0	40	480	1.0	1	2.0	-2.0	2.5	9Z
ACZRV52B6V2-HF	6.2	6.08	6.32	5.0	10	400	1.0	3	4.0	0.4	3.7	AZ
ACZRV52B6V8-HF	6.8	6.66	6.94	5.0	15	150	1.0	2	4.0	1.2	4.5	BZ
ACZRV52B7V5-HF	7.5	7.35	7.65	5.0	15	80	1.0	1	5.0	2.5	5.3	CZ
ACZRV52B8V2-HF	8.2	8.04	8.36	5.0	15	80	1.0	0.7	5.0	3.2	6.2	DZ
ACZRV52B9V1-HF	9.1	8.92	9.28	5.0	15	100	1.0	0.5	6.0	3.8	7.0	EZ
ACZRV52B10-HF	10	9.80	10.20	5.0	20	150	1.0	0.2	7.0	4.5	8.0	FZ
ACZRV52B11-HF	11	10.78	11.22	5.0	20	150	1.0	0.1	8.0	5.4	9.0	GZ
ACZRV52B12-HF	12	11.76	12.24	5.0	25	150	1.0	0.1	8.0	6.0	10.0	HZ
ACZRV52B13-HF	13	12.74	13.26	5.0	30	170	1.0	0.1	8.0	7.0	11.0	JZ
ACZRV52B15-HF	15	14.70	15.30	5.0	30	200	1.0	0.05	10.5	9.2	13.0	KZ
ACZRV52B16-HF	16	15.68	16.32	5.0	40	200	1.0	0.05	11.2	10.4	14.0	LZ
ACZRV52B18-HF	18	17.64	18.36	5.0	45	225	1.0	0.05	12.6	12.4	16.0	MZ
ACZRV52B20-HF	20	19.60	20.40	5.0	55	225	1.0	0.05	14.0	14.4	18.0	NZ
ACZRV52B22-HF	22	21.56	22.44	5.0	55	250	1.0	0.05	15.4	16.4	20.0	PZ
ACZRV52B24-HF	24	23.52	24.48	5.0	70	250	1.0	0.05	16.8	18.4	22.0	RZ
ACZRV52B27-HF	27	26.46	27.54	2.0	80	300	0.5	0.05	18.9	21.4	25.3	SZ
ACZRV52B30-HF	30	29.40	30.60	2.0	80	300	0.5	0.05	21.0	24.4	29.4	TZ
ACZRV52B33-HF	33	32.34	33.66	2.0	80	325	0.5	0.05	23.0	27.4	33.4	UZ
ACZRV52B36-HF	36	35.28	36.72	2.0	90	350	0.5	0.05	25.2	30.4	37.4	VZ
ACZRV52B39-HF	39	38.22	39.78	2.0	130	350	0.5	0.05	27.3	33.4	41.2	WZ

Company reserves the right to improve product design , functions and reliability without notice.

REV: A

TYPICAL RATING AND CHARACTERISTIC CURVES (ACZRV52B-HF Series)

Fig.1 - Power Derating Curve

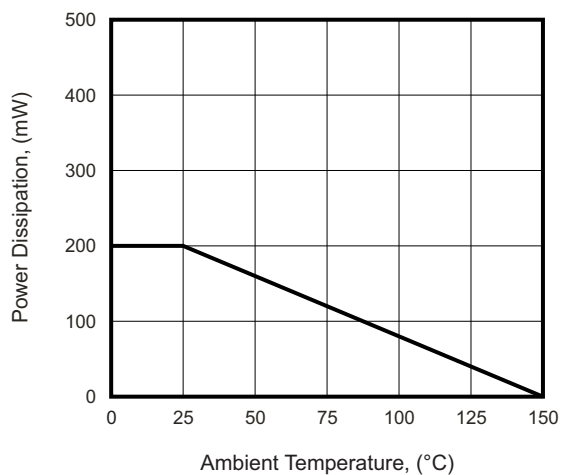


Fig.2 - Zener Breakdown Characteristics

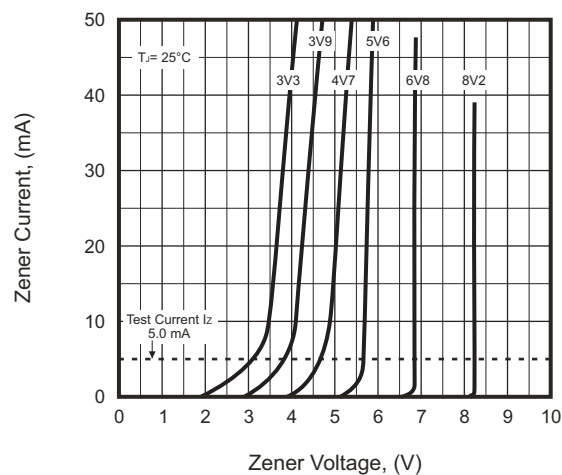


Fig.3 - Zener Breakdown Characteristics

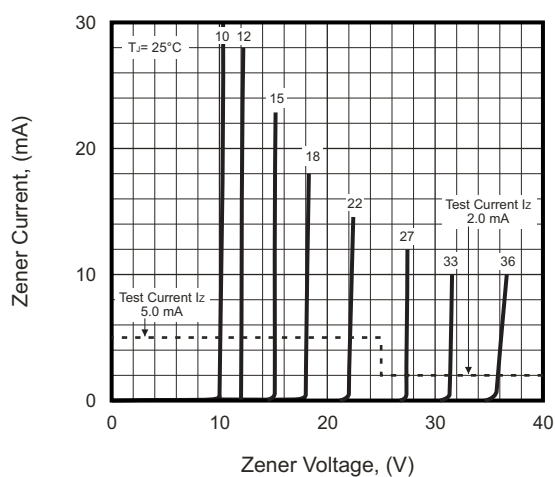
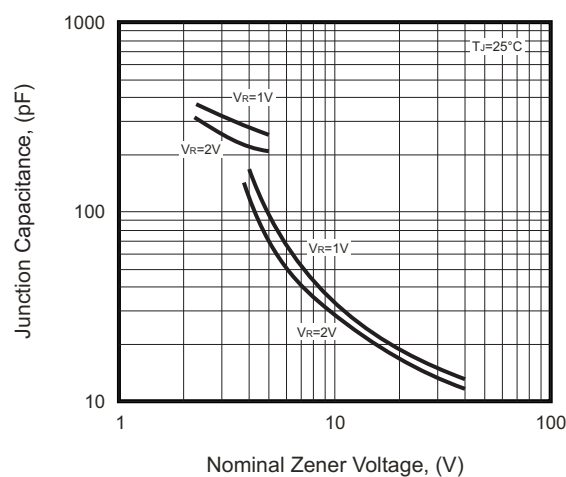
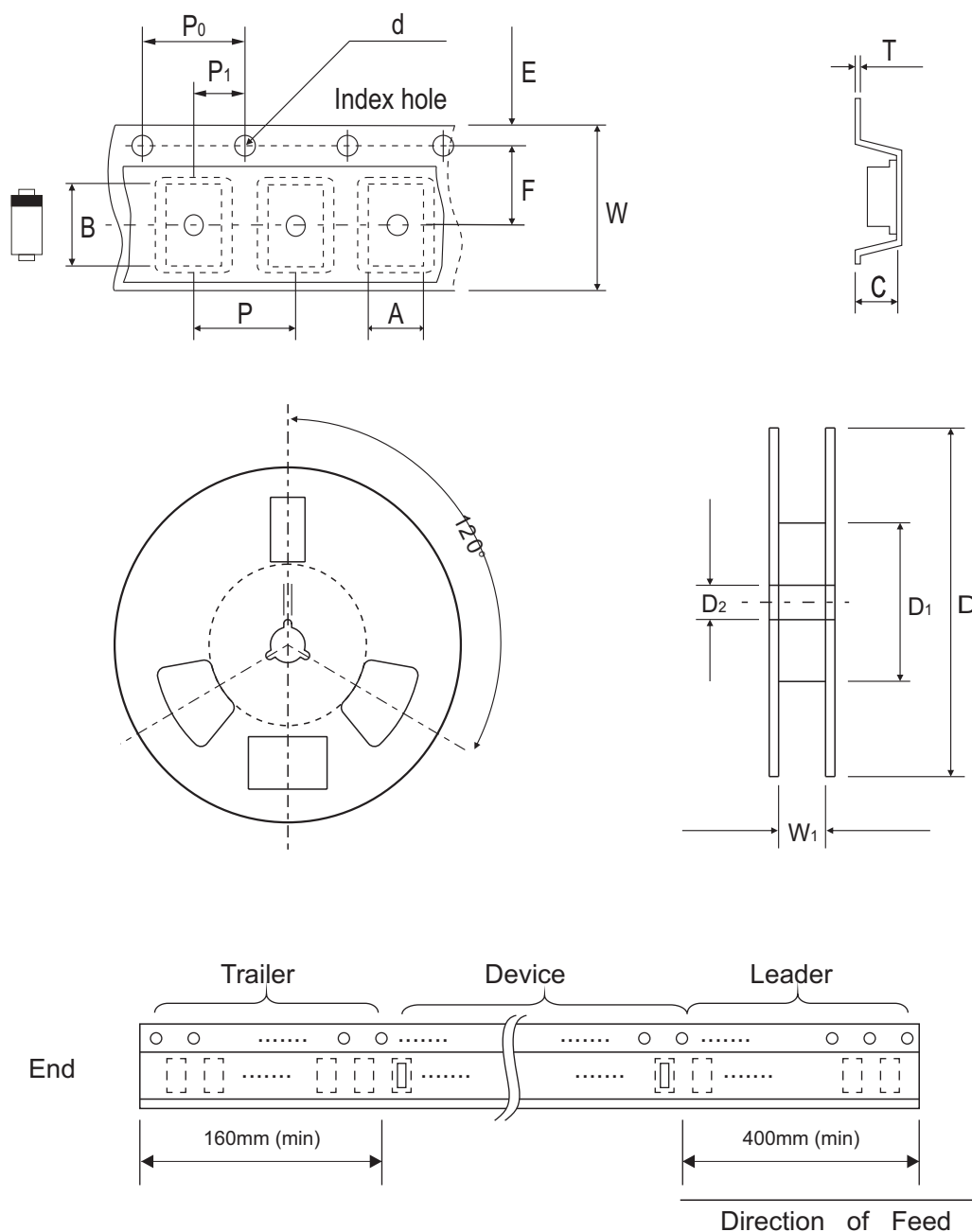


Fig.4 - Junction Capacitance v.s Nominal Zener Voltage



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D1	D2
SOD-323	(mm)	1.46 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 ± 0.10	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	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

	SYMBOL	E	F	P	P0	P1	W	W1
SOD-323	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	$8.00 \pm 0.30 / - 0.10$	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.002	$0.315 \pm 0.012 / - 0.004$	0.374 ± 0.039

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REV: A

Marking Code

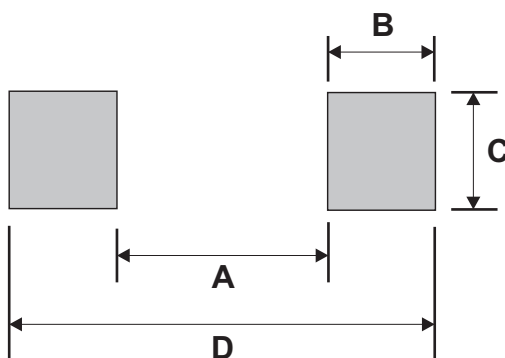
Part Number	Marking Code
ACZRV52B-HF Series	See Page 2



XX/XXX = Product type marking code

Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	1.60	0.063
B	0.63	0.024
C	0.83	0.033
D	2.85	0.112



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