



DATA SHEET

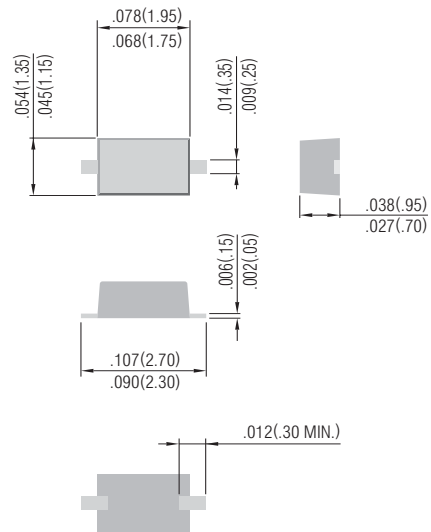
BZT52-C2V4S~BZT52-C39S

SURFACE MOUNT SILICON ZENER DIODES

VOLTAGE 2.4 to 39 Volts **POWER** 200 mWatts

Unit: inch (mm)

SOD-323



FEATURES

- Planar Die construction
- 200mW Power Dissipation
- Zener Voltages from 2.4~39V
- Ideally Suited for Automated Assembly Processes

MECHANICAL DATA

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Approx. Weight: 0.008 grams
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Notes A) at 25°C	P _D	200	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Notes B)	I _{FSM}	2.0	Amps
Operating Junction and Storage Temperature Range	T _J	-55 to +150	°C

NOTES:

A. Mounted on 5.0mm²(.013mm thick) land areas.

B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.



Part Number	Marking Code	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Typical Temp. Coefficient	Package
		V _Z @ I _{ZT}			Z _T @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R			
		Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	T _c	
200 mWatts Zener Diodes												
BZT52-C2V4S	W1	2.4	2.28	2.52	85	5	600	1	100	1	-0.075	SOD-323
BZT52-C2V7S	W2	2.7	2.5	2.9	83	5	500	1	75	1	-0.065	SOD-323
BZT52-C3S	W3	3	2.8	3.2	95	5	500	1	50	1	-0.060	SOD-323
BZT52-C3V3S	W4	3.3	3.1	3.5	95	5	500	1	25	1	-0.055	SOD-323
BZT52-C3V6S	W5	3.6	3.4	3.8	95	5	500	1	15	1	-0.055	SOD-323
BZT52-C3V9S	W6	3.9	3.7	4.1	95	5	500	1	10	1	-0.050	SOD-323
BZT52-C4V3S	W7	4.3	4	4.6	95	5	500	1	5.0	1	-0.035	SOD-323
BZT52-C4V7S	W8	4.7	4.4	5	78	5	500	1	5.0	2	-0.015	SOD-323
BZT52-C5V1S	W9	5.1	4.8	5.4	60	5	480	1	0.1	0.8	0.005	SOD-323
BZT52-C5V6S	WA	5.6	5.2	6	40	5	400	1	0.1	1	0.020	SOD-323
BZT52-C6V2S	WB	6.2	5.8	6.6	10	5	200	1	0.1	2	0.030	SOD-323
BZT52-C6V8S	WC	6.8	6.4	7.2	8	5	150	1	0.1	3	0.045	SOD-323
BZT52-C7V5S	WD	7.5	7	7.9	7	5	50	1	0.1	5	0.050	SOD-323
BZT52-C8V2S	WE	8.2	7.7	8.7	7	5	50	1	0.1	6	0.055	SOD-323
BZT52-C9V1S	WF	9.1	8.5	9.6	10	5	50	1	0.1	7	0.065	SOD-323
BZT52-C10S	WG	10	9.4	10.6	15	5	70	1	0.1	7.5	0.070	SOD-323
BZT52-C11S	WH	11	10.4	11.6	20	5	70	1	0.1	8.5	0.075	SOD-323
BZT52-C12S	WI	12	11.4	12.7	20	5	90	1	0.1	9	0.080	SOD-323
BZT52-C13S	WK	13	12.4	14.1	25	5	110	1	0.1	10	0.080	SOD-323
BZT52-C15S	WL	15	13.8	15.6	30	5	110	1	0.1	11	0.090	SOD-323
BZT52-C16S	WM	16	15.3	17.1	40	5	170	1	0.1	12	0.090	SOD-323
BZT52-C18S	WN	18	16.8	19.1	50	5	170	1	0.1	14	0.090	SOD-323
BZT52-C20S	WO	20	18.8	21.2	50	5	220	1	0.1	15	0.090	SOD-323
BZT52-C22S	WP	22	20.8	23.3	55	5	220	1	0.1	17	0.090	SOD-323
BZT52-C24S	WR	24	22.8	25.6	80	5	220	1	0.1	18	0.090	SOD-323
BZT52-C27S	WS	27	25.1	28.9	80	5	250	1	0.1	20	0.090	SOD-323
BZT52-C30S	WT	30	28	32	80	5	250	1	0.1	22.5	0.090	SOD-323
BZT52-C33S	WU	33	31	35	80	5	250	1	0.1	25	0.090	SOD-323
BZT52-C36S	WW	36	34	38	90	5	250	1	0.1	27	0.090	SOD-323
BZT52-C39S	WX	39	37	41	90	5	300	1	0.1	29	0.110	SOD-323

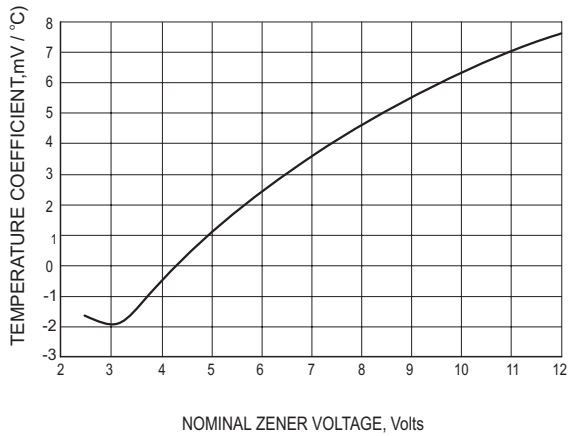


Fig 1. TEMPERATURE COEFFICIENTS

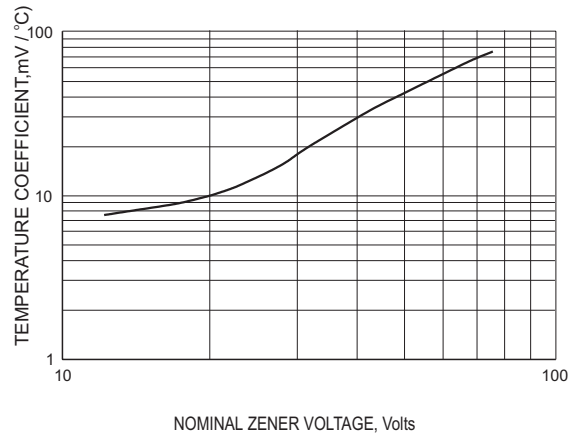


Fig 2. TEMPERATURE COEFFICIENTS

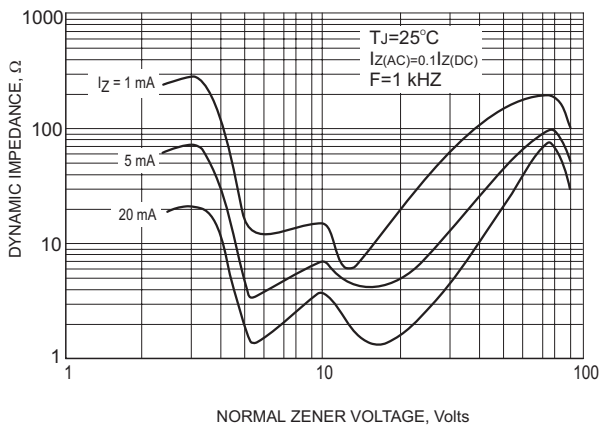


Fig 3. EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

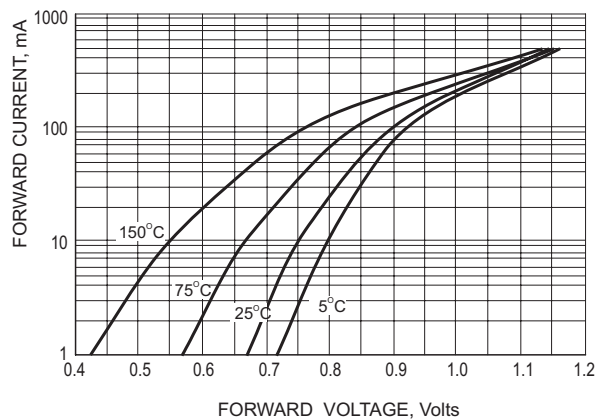


Fig 4. TYPICAL FORWARD VOLTAGE

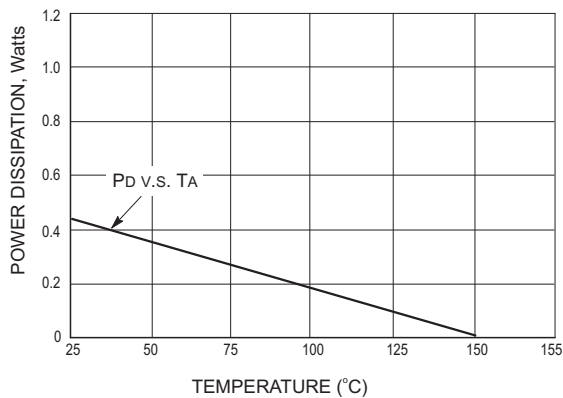


Fig 5. STEADY STATE POWER DERATING

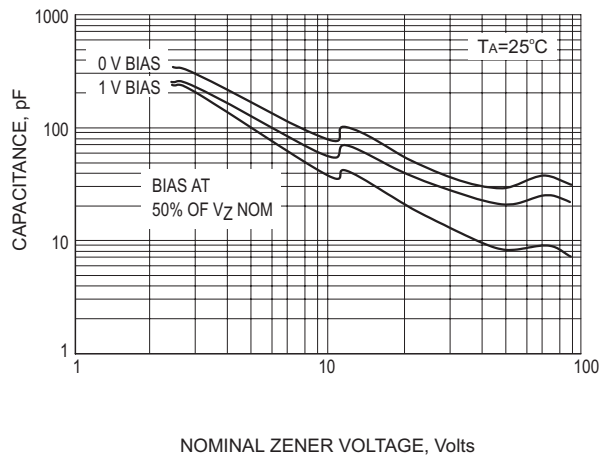


Fig 6. TYPICAL CAPACITANCE

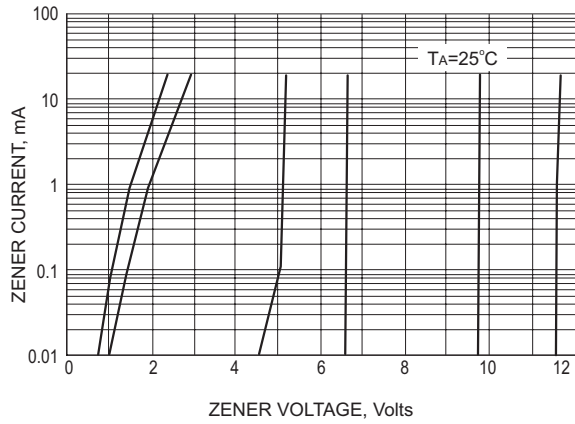


Fig 7. ZENER VOLTAGE VERSUS ZENER CURRENT

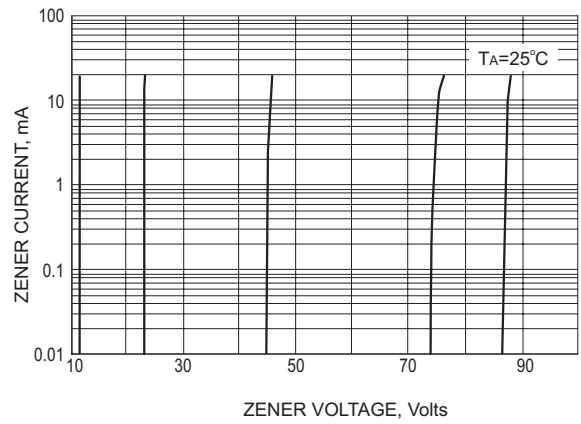


Fig 8. ZENER VOLTAGE VERSUS ZENER CURRENT

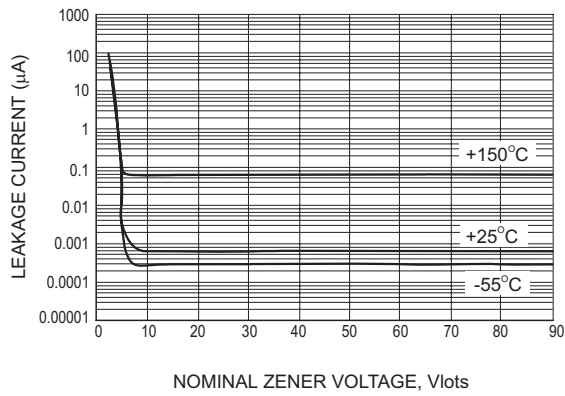


Fig 9. TYPICAL LEAKAGE CURRENT