

BZT52-C2V4S THRU BZT52-C75S

Surface Mount Zener Diode

Features

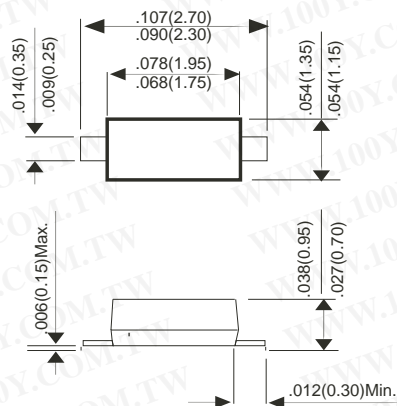
- ★ For surface mounted applications
- ★ 200 mW power dissipation
- ★ Ideally suited for automated assembly processes

Mechanical Data

- ★ Case: Molded plastic SOD-323
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750 method 2026
- ★ Polarity: cathode band
- ★ Mounting position: Any
- ★ Weight: 0.008 gram

Zener Voltage 3.0 to 75 V
Power Dissipation 200m Watts

SOD-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Maximum Forward voltage drop at IF = 10mA	VF	0.9	V
Power Dissipation (Note 1)	PD	200	mW
Half sine-wave superimposed on rated load (Note 2) (JEDEC method)	IFSM	2.0	A
Operating junction and Storage Temperature Range	TJ, TSTG	-55 to +150	°C

NOTES : (1) Mounted on 5.0mm² (.013mm thick) land areas.

(2) Measurd on 8.3ms, single half-sine wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

BZT52-C2V4S THRU BZT52-C75S

Part No.	Electrical Characteristics (Ta=25°C)								Temp. Coefficient	
	Vz(Min)	Vz(Max)	IzT	ZzT	IzK	ZzK(1)	IR(uA) Max.	at IzT (%/K)		
	(V)	(V)	(mA)	(Ohm)	(mA)	(Ohm)	VR(V)	Min.	Max.	
BZT52-C2V4S	2.20	2.60	5.0	85	1.0	600	50	1	-0.08	-0.06
BZT52-C2V7S	2.50	2.90	5.0	75	1.0	500	20	1	-0.09	-0.04
BZT52-C3V0S	2.80	3.20	5.0	80	1.0	500	10	1	-0.09	-0.03
BZT52-C3V3S	3.10	3.50	5.0	80	1.0	500	5	1	-0.08	-0.03
BZT52-C3V6S	3.40	3.80	5.0	80	1.0	500	3	1	-0.08	-0.03
BZT52-C3V9S	3.70	4.10	5.0	80	1.0	500	3	1	-0.07	-0.03
BZT52-C4V3S	4.00	4.60	5.0	80	1.0	500	3	1	-0.06	-0.01
BZT52-C4V7S	4.40	5.00	5.0	70	1.0	500	2	2	-0.05	+0.02
BZT52-C5V1S	4.80	5.40	5.0	30	1.0	480	1	2	-0.03	+0.04
BZT52-C5V6S	5.20	6.00	5.0	10	1.0	400	3	2	-0.02	+0.06
BZT52-C6V2S	5.80	6.60	5.0	4.8	1.0	200	2	4	-0.01	+0.07
BZT52-C6V8S	6.40	7.20	5.0	4.5	1.0	150	1	4	+0.02	+0.07
BZT52-C7V5S	7.00	7.90	5.0	4.0	1.0	50	0.7	5	+0.03	+0.07
BZT52-C8V2S	7.70	8.70	5.0	4.5	1.0	50	0.5	5	+0.04	+0.07
BZT52-C9V1S	8.50	9.60	5.0	4.8	1.0	50	0.2	6	+0.05	+0.08
BZT52-C10S	9.40	10.60	5.0	5.2	1.0	70	0.1	7	+0.05	+0.08
BZT52-C11S	10.40	11.60	5.0	6.0	1.0	70	0.1	8	+0.05	+0.09
BZT52-C12S	11.40	12.70	5.0	7.0	1.0	90	0.1	8	+0.06	+0.09
BZT52-C13S	12.40	14.10	5.0	9.0	1.0	110	0.05	8	+0.07	+0.09
BZT52-C15S	13.80	15.60	5.0	11	1.0	110	0.05	10	+0.07	+0.09
BZT52-C16S	15.30	17.10	5.0	13	1.0	170	0.05	11	+0.08	+0.095
BZT52-C18S	16.80	19.10	5.0	18	1.0	170	0.05	13	+0.08	+0.095
BZT52-C20S	18.80	21.20	5.0	20	1.0	220	0.05	14	+0.08	+0.1
BZT52-C22S	20.80	23.30	5.0	25	1.0	220	0.05	15	+0.08	+0.1
BZT52-C24S	22.80	25.60	5.0	28	1.0	220	0.05	17	+0.08	+0.1
BZT52-C27S	25.10	28.90	5.0	30	1.0	250	0.05	19	+0.08	+0.1
BZT52-C30S	28.00	32.00	5.0	35	1.0	250	0.05	21	+0.08	+0.1
BZT52-C33S	31.00	35.00	5.0	40	1.0	250	0.05	23	+0.08	+0.1
BZT52-C36S	34.00	38.00	5.0	40	1.0	250	0.05	25	+0.08	+0.1
BZT52-C39S	37.00	41.00	5.0	50	1.0	300	0.05	27	+0.1	+0.12
BZT52-C43S	40.00	46.00	5.0	60	1.0	700	0.05	30	+0.1	+0.12
BZT52-C47S	44.00	50.00	5.0	70	1.0	750	0.05	33	+0.1	+0.12
BZT52-C51S	48.00	54.00	5.0	70	1.0	750	0.05	36	+0.1	+0.12
BZT52-C56S	52.00	60.00	2.5	135	1.0	1000	0.05	39	+0.1	+0.1
BZT52-C62S	58.00	66.00	2.5	150	1.0	1000	0.05	43	+0.1	+0.1
BZT52-C68S	64.00	72.00	2.5	200	1.0	1000	0.05	48	+0.1	+0.1
BZT52-C75S	70.00	79.00	2.5	250	1.0	1000	0.05	53	+0.1	+0.1

C:5% B:2% A:1%

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RATINGS AND CHARACTERISTIC CURVES BZT52-C2V4S THRU BZT52-C75S

Figure 1. TEMPERATURE COEFFICENYS

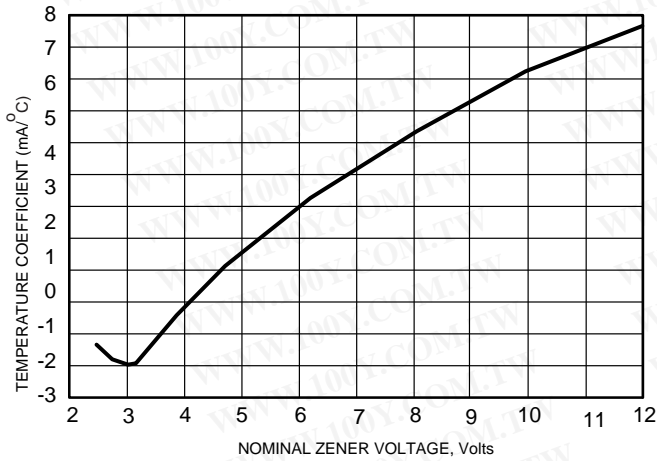


Figure 2. TEMPERATURE COFFICENTS

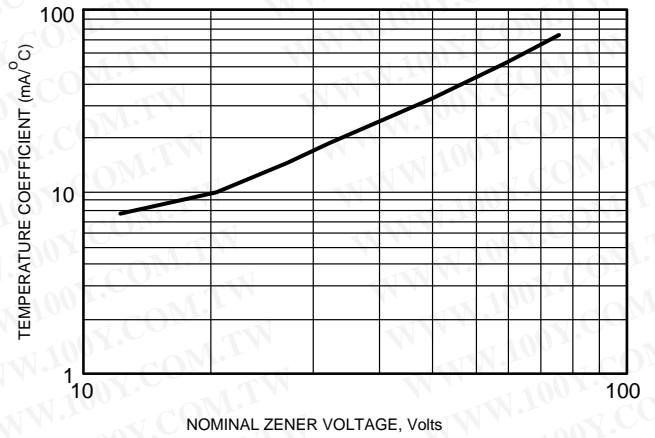


Figure 3. EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

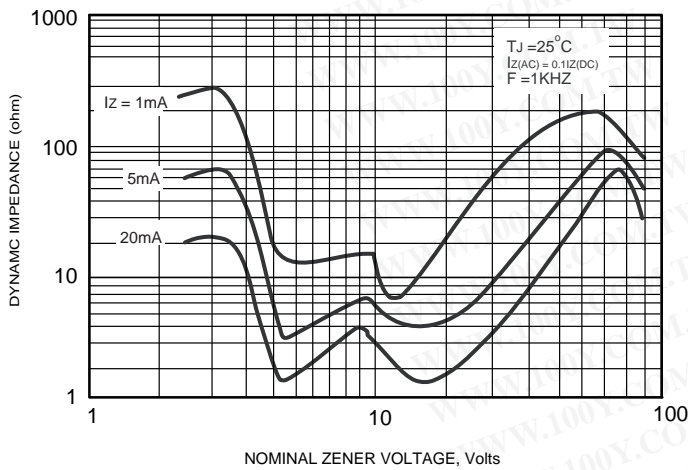


Figure 4. TYPICAL FORWARD VOLTAGE

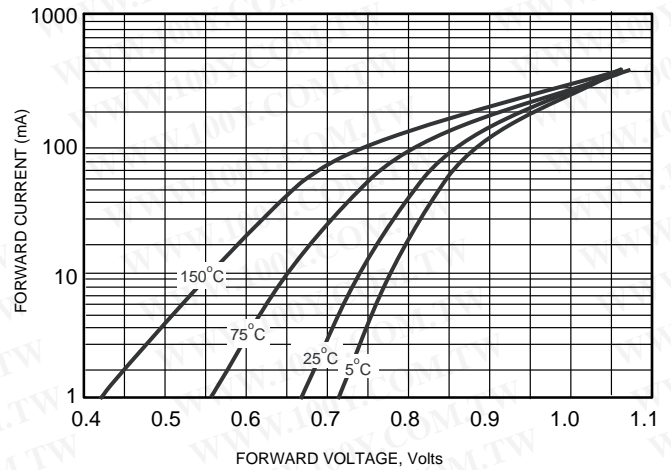


Figure 5. STEADY STATE POWER DERATING

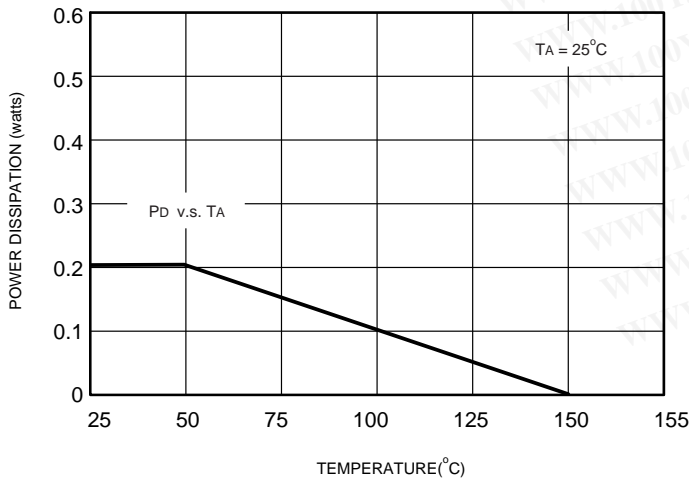
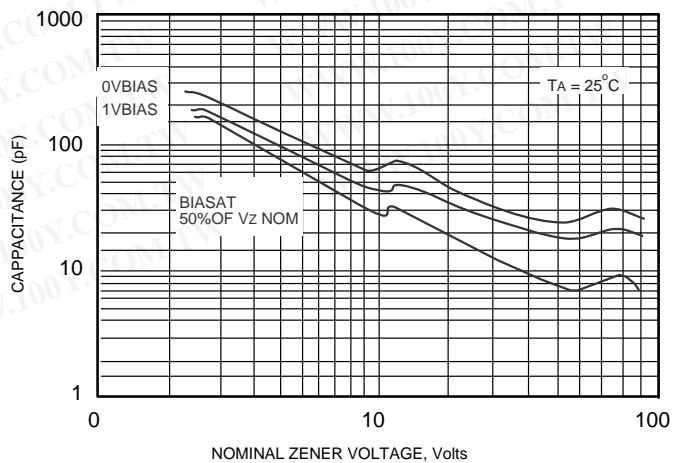


Figure 6. TYPICAL CAPACITANCE



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FIG 7. ZENER VOLTAGE V.S. ZENER CURRENT

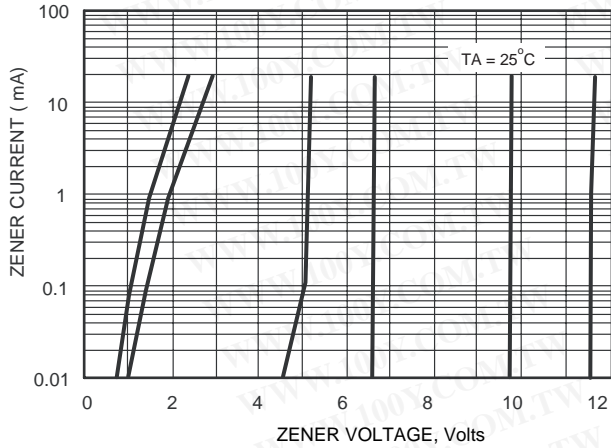


FIG 8. ZENER VOLTAGE V.S. ZENER CURRENT

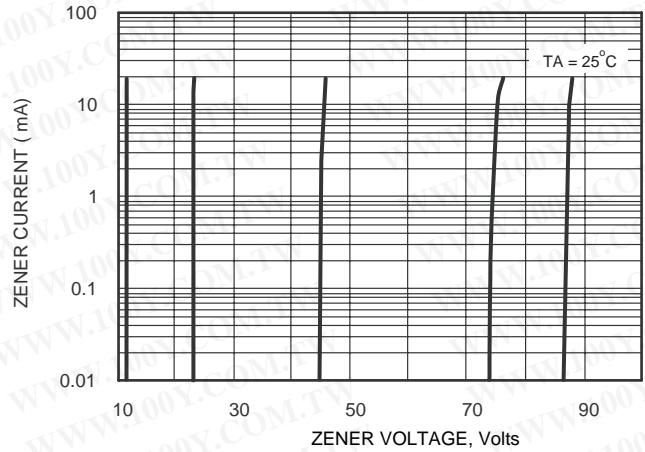
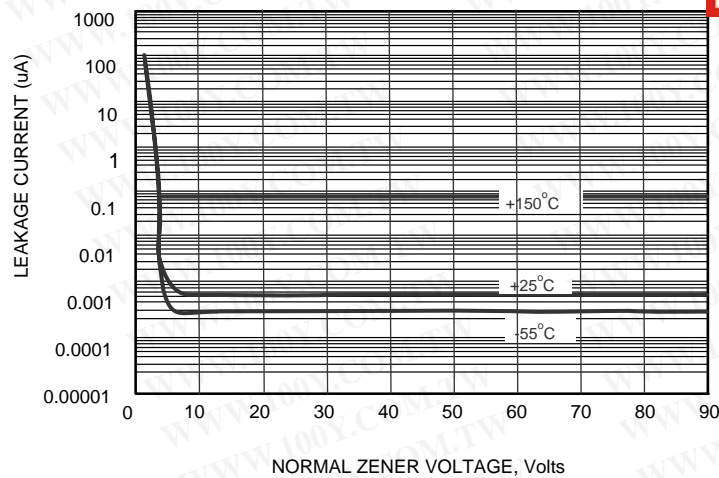


FIG 9. TYPICAL LEAKAGE CURRENT



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