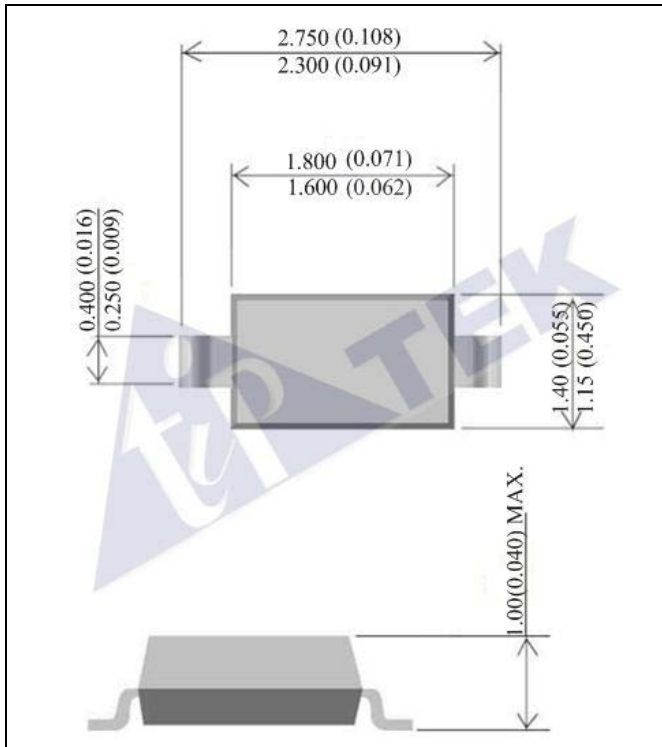


## 200mW SURFACE MOUNT ZENER DIODES



CASE : SOD-323

DIMENSIONS IN MILLIMETERS AND (INCHES)

### FEATURES

- PLANAR DIE CONSTRUCTION
- 200mW POWER DISSIPATION
- ZENER VOLTAGES FROM 2.4~75V
- IDEALLY SUITED FOR AUTOMATED ASSEMBLY PROCESSES
- BOTH NORMAL AND Pb FREE PRODUCT ARE AVAILABLE:  
 NORMAL: 80~95% Sn , 5~20%Pb  
 Pb FREE: 98.5% Sn ABOVE

### MECHANICAL DATA

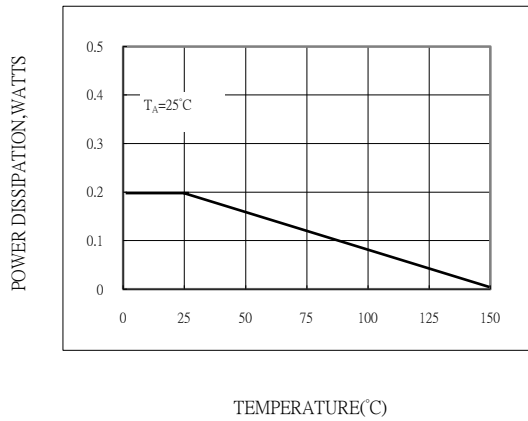
- CASE:SOD-323,MOLDED PLASTIC
- TERMINALS:SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY:SEE DIAGRAM BELOW
- APPROX. WEIGHT: 0.00465 GRAMS
- MOUNTING POSITION:ANY
- Pb Free: BZT52-C2V4S~BZT52-C75S  
 Halogen Free: BZT52-C2V4S-H~BZT52-C75S-H

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

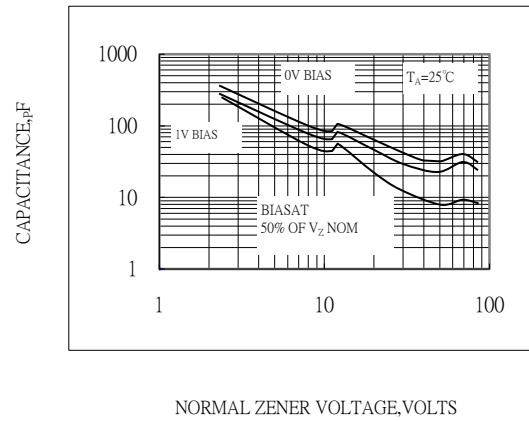
RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED			
PARAMETER	SYMBOL	VALUE	UNITS
MAXIMUM FORWARD VOLTAGE DROP AT IF=10mA	$V_F$	0.9	V
THERMAL RESISTANCE, JUNCTION TO AMBIENT	$R_{\theta JA}$	625	°C/W
MAXIMUM POWER DISSIPATION AT 25°C (NOTE 1)	$P_D$	200	mW
JUNCTION TEMPERATURE	$T_J$	-55to+150	°C
STORAGE TEMPERATURE RANGE	$T_{STG}$	-55to+150	°C

NOTE: 1. VALID PROVIDED THAT DEVICE TERMINALS ARE KEPT AT AMBIENT TEMPERATURE.

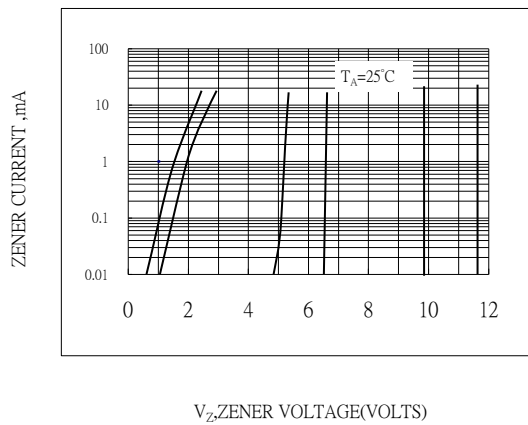
Part Number	Nominal Zener Voltage			Max. Zener Impedan-Ce				Max Reverse Leakage -Current	
	Vz @ IZT			ZzT @ IZT		ZzK @ IZK		IR @ VR	
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V
200 mWatts Zener Diodes									
BZT52-C2V4S	2.4	2.20	2.60	100	5.0	1000	0.5	50	1.0
BZT52-C2V7S	2.7	2.50	2.90	100	5.0	1000	0.5	20	1.0
BZT52-C3V0S	3.0	2.80	3.20	100	5.0	1000	0.5	10	1.0
BZT52-C3V3S	3.3	3.10	3.50	95	5.0	1000	0.5	5.0	1.0
BZT52-C3V6S	3.6	3.40	3.80	90	5.0	1000	0.5	5.0	1.0
BZT52-C3V9S	3.9	3.70	4.10	90	5.0	1000	0.5	3.0	1.0
BZT52-C4V3S	4.3	4.00	4.60	90	5.0	1000	0.5	3.0	1.0
BZT52-C4V7S	4.7	4.40	5.00	80	5.0	800	0.5	3.0	2.0
BZT52-C5V1S	5.1	4.80	5.40	60	5.0	800	0.5	2.0	2.0
BZT52-C5V6S	5.6	5.20	6.00	40	5.0	700	0.5	1.0	2.0
BZT52-C6V2S	6.2	5.80	6.60	10	5.0	100	0.5	3.0	4.0
BZT52-C6V8S	6.8	6.40	7.20	15	5.0	160	0.5	2.0	4.0
BZT52-C7V5S	7.5	7.00	7.90	15	5.0	160	0.5	1.0	5.0
BZT52-C8V2S	8.2	7.70	8.70	15	5.0	160	0.5	0.7	5.0
BZT52-C9V1S	9.1	8.50	9.60	15	5.0	160	0.5	0.2	7.0
BZT52-C10S	10	9.40	10.60	20	5.0	160	0.5	0.1	8.0
BZT52-C11S	11	10.40	11.60	20	5.0	160	0.5	0.1	8.0
BZT52-C12S	12	11.40	12.70	25	5.0	80	0.5	0.1	8.0
BZT52-C13S	13.25	12.40	14.10	30	5.0	80	0.5	0.1	8.0
BZT52-C15S	15	14.30	15.80	30	5.0	400	0.5	0.05	10.5
BZT52-C16S	16.2	15.30	17.10	40	5.0	400	0.5	0.05	11.2
BZT52-C18S	18	16.80	19.10	45	5.0	400	0.5	0.05	12.6
BZT52-C20S	20	18.80	21.20	55	5.0	500	0.5	0.05	14.0
BZT52-C22S	22	20.80	23.30	55	5.0	500	0.5	0.05	15.4
BZT52-C24S	24.2	22.80	25.60	70	5.0	120	0.5	0.05	16.8
BZT52-C27S	27	25.10	28.90	80	2.0	300	0.5	0.05	18.9
BZT52-C30S	30	28.00	32.00	80	2.0	300	0.5	0.05	21.0
BZT52-C33S	33	31.00	35.00	80	2.0	300	0.5	0.05	23.2
BZT52-C36S	36	34.00	38.00	90	2.0	500	0.5	0.05	25.2
BZT52-C39S	39	37.00	41.00	130	2.0	500	0.5	0.05	27.3
BZT52-C43S	43	40	46	150	2.0	500	0.5	0.05	30.1
BZT52-C47S	47	44	50	170	2.0	500	0.5	0.05	32.9
BZT52-C51S	51	48	54	180	2.0	500	0.5	0.05	35.7
BZT52-C56S	56	52	60	200	2.0	500	0.5	0.05	39.2
BZT52-C62S	62	58	66	215	2.0	500	0.5	0.05	43.4
BZT52-C68S	68	64	72	240	2.0	500	0.5	0.05	47.6
BZT52-C75S	75	70	79	255	2.0	500	0.5	0.05	52.5



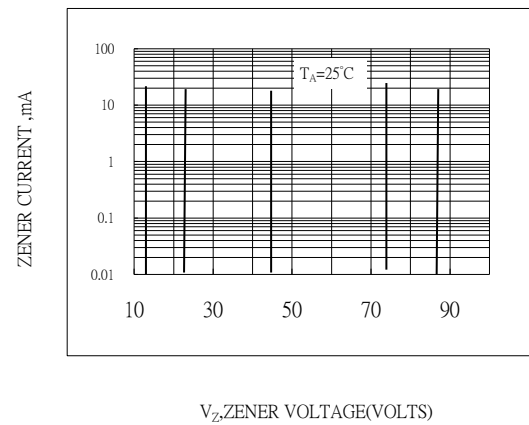
**Fig.1-STEADY STATE POWER DERATING**



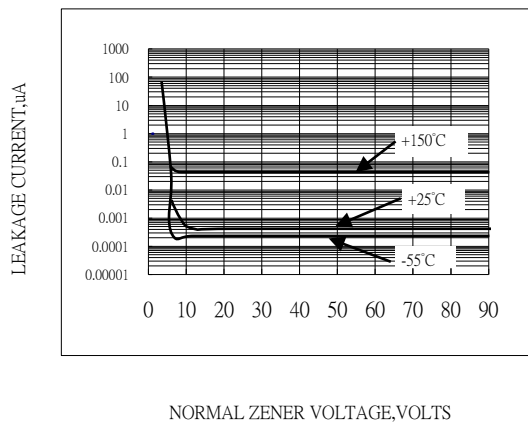
**Fig.2-TYPICAL CAPACITANCE**



**Fig.3A-V<sub>Z</sub>=2.4 THRU 11.0 VOLTS**



**Fig.3B-V<sub>Z</sub>=12 THRU 75 VOLTS**



**Fig.4-TYPICAL LEAKAGE CURRENT**