DEC

ZENER DIODE

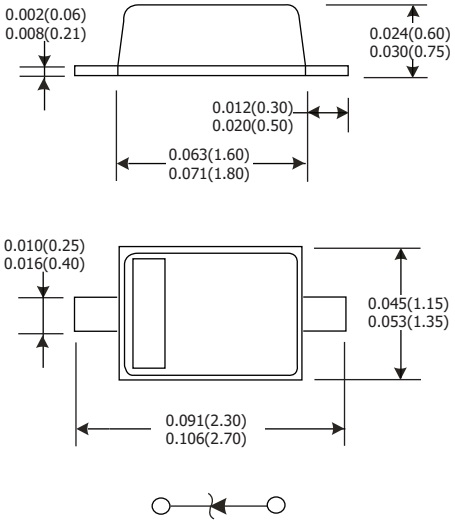
BZT52C2V4SF THRU BZT52C75SF

PowerDissipation 0.2 W
VOLTAGE 2.4 to 75 V

Features

- Constant voltage control
- Wide voltage range selection 2.4V to 75V
- Vz tolerance selection of ±2% (B series)
- SOD-323F thin SMD package
- RoHS compliant / Green EMC
- Matte Tin (Sn) lead finish
- Cathode band

SOD-323F



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

Items	Symbols	Value	Units
Power dissipation	P_D	200	mW
Junction temperature	T_J	150	℃
Maximum regulator current	T_{STG}	-55 to + 125	℃

Download from alldatasheet.com

DEC

RATINGS AND CHARACTERISTIC CURVES BZT52C2V4SF THRU BZT52C75SF

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

Device type	V_Z (V) [1]			Z_{ZT} (Ω)	I_Z (mA)	Z_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)
	Min	Typ	Max	Max		Max		Max	
BZT52C2V4SF	2.45	2.53	2.61	100	5	1000	0.5	120	1.0
BZT52C2V7SF	2.71	2.80	2.89	110	5	1000	0.5	100	1.0
BZT52C3V0SF	3.03	3.12	3.20	120	5	1000	0.5	50	1.0
BZT52C3V3SF	3.34	3.43	3.51	120	5	1000	0.5	20	1.0
BZT52C3V6SF	3.53	3.60	3.67	100	5	1000	1	10	1.0
BZT52C3V9SF	3.82	3.90	3.98	100	5	1000	1	5	1.0
BZT52C4V3SF	4.21	4.30	4.39	100	5	1000	1	5	1.0
BZT52C4V7SF	4.61	4.70	4.79	100	5	800	1	2	1.0
BZT52C5V1SF	5.00	5.10	5.20	80	5	500	1	2	1.0
BZT52C5V6SF	5.49	5.60	5.71	60	5	400	1	1	1.0
BZT52C6V2SF	6.08	6.20	6.32	60	5	150	1	1	2.0
BZT52C6V8SF	6.66	6.80	6.94	40	5	80	1	0.5	3.0
BZT52C7V5SF	7.35	7.50	7.65	30	5	60	1	0.5	5.0
BZT52C8V2SF	8.04	8.20	8.36	30	5	60	1	0.5	6.1
BZT52C9V1SF	8.92	9.10	9.28	30	5	60	1	0.5	6.8
BZT52C10SF	9.80	10.00	10.20	30	5	70	1	0.1	7.5
BZT52C11SF	10.78	11.00	11.22	30	5	70	1	0.1	8.2
BZT52C12SF	11.76	12.00	12.24	30	5	90	1	0.1	9.0
BZT52C13SF	12.74	13.00	13.26	40	5	110	1	0.1	9.7
BZT52C15SF	14.70	15.00	15.30	45	5	110	1	0.1	11
BZT52C16SF	15.68	16.00	16.32	50	5	170	1	0.1	12
BZT52C18SF	17.64	18.00	18.36	65	5	170	1	0.1	14
BZT52C20SF	19.60	20.00	20.40	85	5	220	1	0.1	15
BZT52C22SF	21.56	22.00	22.44	100	5	220	1	0.1	17
BZT52C24SF	23.52	24.00	24.48	120	5	220	1	0.1	18
BZT52C27SF	26.46	27.00	27.54	150	5	220	1	0.1	20
BZT52C30SF	29.40	30.00	30.60	200	5	220	1	0.1	22
BZT52C33SF	32.34	33.00	33.66	250	5	250	1	0.1	24
BZT52C36SF	35.28	36.00	36.72	300	5	300	1	0.1	27
BZT52C39SF	38.22	39	39.78	130	5	350	0.5	0.1	27.3
BZT52C43SF	41.16	43	42.84	130	5	350	0.5	0.1	29.4
BZT52C47SF	45.83	47	48.17	170	5	1000	0.25	0.1	36
BZT52C51SF	49.73	51	52.27	180	5	1300	0.25	0.1	39
BZT52C56SF	54.60	56	57.40	200	5	1400	0.25	0.1	43
BZT52C62SF	60.45	62	63.55	225	5	1400	0.25	0.1	47
BZT52C68SF	66.30	68	69.70	240	5	1600	0.25	0.1	52
BZT52C75SF	73.13	75	76.87	265	5	1700	0.25	0.1	56

Note : (1) Pulse width=10ms

Download from alldatasheet.com

DEC

RATINGS AND CHARACTERISTIC CURVES BZT52C2V4SF THRU BZT52C75SF

FIG.1-ZENER BREAKDOWN CHARACTERISTICS

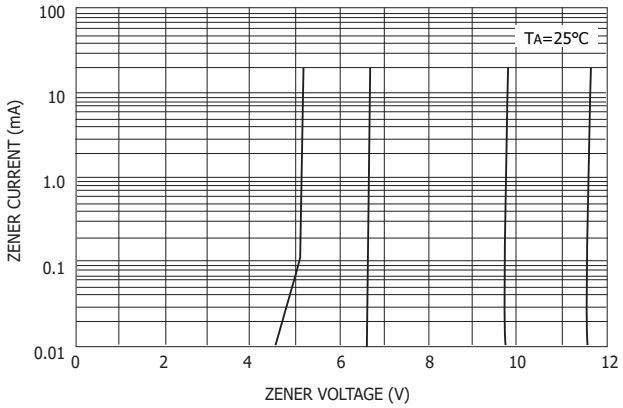


FIG.2-ZENER BREAKDOWN CHARACTERISTICS

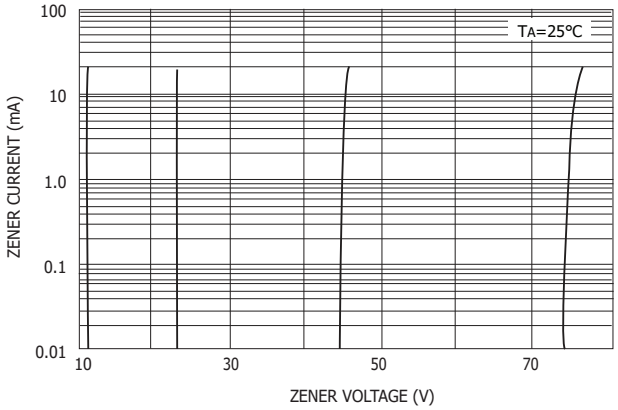


FIG.3-TYPICAL FORWARD VOLTAGE

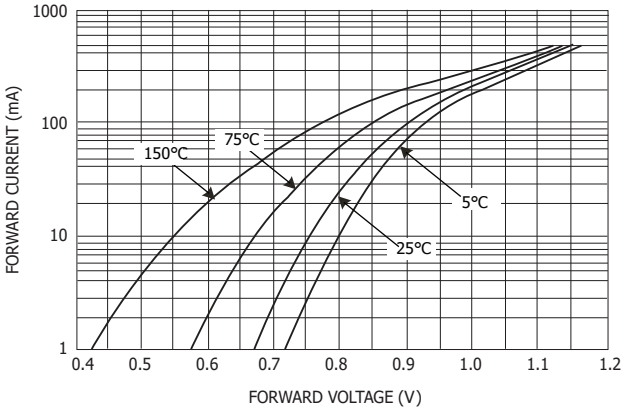


FIG.4-EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

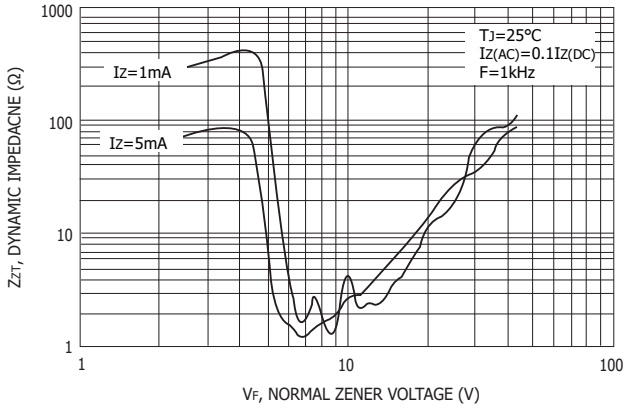


FIG.5-TYPICAL CAPACITANCE

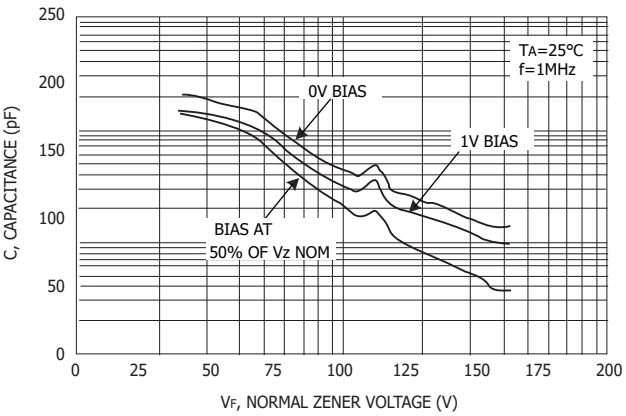
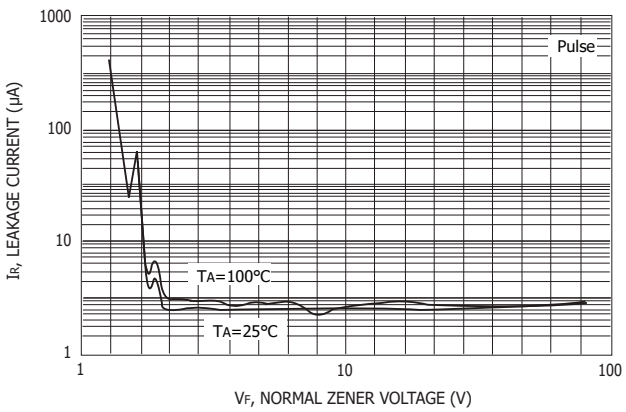


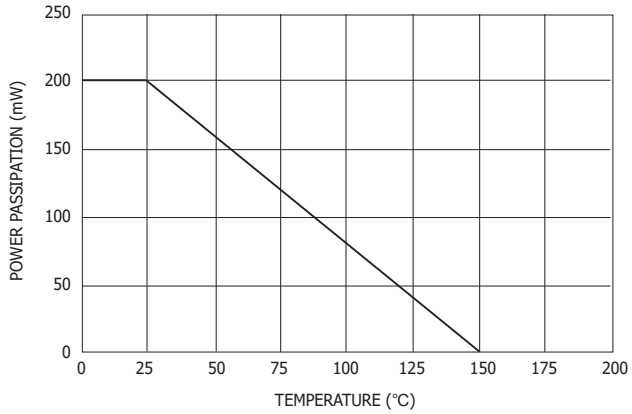
FIG.6-TYPICAL LEAKAGE CURRNET



Download from alldatasheet.com

RATINGS AND CHARACTERISTIC CURVES BZT52C2V4SF THRU BZT52C75SF

FIG.7- POWER DISSIPATION VS AMBIENT TEMP



Download from alldatasheet.com