



DESCRIPTION

The BZT52C27S~BZT52C75S is available in SOD-323 package.

MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

ORDERING INFORMATION

Package Type	Part Number	
SOD-323	BZT52C2V4S	BZT52C15S
	BZT52C2V7S	BZT52C16S
	BZT52C3V0S	BZT52C18S
	BZT52C3V3S	BZT52C20S
	BZT52C3V6S	BZT52C22S
	BZT52C3V9S	BZT52C24S
	BZT52C4V3S	BZT52C27S
	BZT52C4V7S	BZT52C30S
	BZT52C5V1S	BZT52C33S
	BZT52C5V6S	BZT52C36S
	BZT52C6V2S	BZT52C39S
	BZT52C6V8S	BZT52C43S
	BZT52C7V5S	BZT52C47S
	BZT52C8V2S	BZT52C51S
	BZT52C9V1S	BZT52C56S
	BZT52C10S	BZT52C62S
	BZT52C11S	BZT52C68S
	BZT52C12S	BZT52C75S
	BZT52C13S	
Note	SPQ: 3,000pcs/Reel	
AiT provides all RoHS Compliant Products		

FEATURE

- Total power dissipation: Max. 200mW.
- Planar die construction for General purpose, medium current
- Wide Zener reverse voltage range 2.4V to 43V.
- Ideally suited for automated assembly processes

PIN DESCRIPTION



SOD-323



PIN#	DESCRIPTION
1	CATHODE
2	ANODE

**ABSOLUTE MAXIMUM RATINGS**

$T_a = 25^{\circ}\text{C}$, unless otherwise specified

P_D , Power Dissipation ⁽¹⁾	200mW
V_F , Forward Voltage at $I_F = 10\text{mA}$ ⁽²⁾	0.9V
$R_{\theta JA}$, Typical Thermal resistance junction to ambient	625°C/W
T_{STG} , Storage Temperature Range	-55°C ~ + 150°C
T_J , Operating Temperature Range	-55°C ~ + 150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

(1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²

(2) Short duration test pulse used to minimize self-heating effect.



ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise specified

PART NUMBER	Zener Voltage Range				Dynamic Impedance			Reverse Current		Typical Temperature Coefficient @I _{ZTC} mV/°C		Test Current I _{ZTC}
	V _Z @I _{ZT}			@I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZT} @I _{ZK}	I _{ZK}	I _R	V _R	MIN	MAX	mA
	Min(V)	Nom(V)	Max(V)	mA	Ω		mA	μA	V			
BZT52C2V4S	2.2	2.4	2.6	5	100	600	1	50	1	-3.5	0	5
BZT52C2V7S	2.5	2.7	2.9	5	100	600	1	20	1	-3.5	0	5
BZT52C3V0S	2.8	3	3.2	5	95	600	1	10	1	-3.5	0	5
BZT52C3V3S	3.1	3.3	3.5	5	95	600	1	5	1	-3.5	0	5
BZT52C3V6S	3.4	3.6	3.8	5	90	600	1	5	1	-3.5	0	5
BZT52C3V9S	3.7	3.9	4.1	5	90	600	1	3	1	-3.5	0	5
BZT52C4V3S	4	4.3	4.6	5	90	600	1	3	1	-3.5	0	5
BZT52C4V7S	4.4	4.7	5	5	80	500	1	3	2	-3.5	0.2	5
BZT52C5V1S	4.8	5.1	5.4	5	60	480	1	2	2	-2.7	1.2	5
BZT52C5V6S	5.2	5.6	6	5	40	400	1	1	2	-2	2.5	5
BZT52C6V2S	5.8	6.2	6.6	5	10	150	1	3	4	0.4	3.7	5
BZT52C6V8S	6.4	6.8	7.2	5	15	80	1	2	4	1.2	4.5	5
BZT52C7V5S	7	7.5	7.9	5	15	80	1	1	5	2.5	5.3	5
BZT52C8V2S	7.7	8.2	8.7	5	15	80	1	0.7	5	3.2	6.2	5
BZT52C9V1S	8.5	9.1	9.6	5	15	100	1	0.5	6	3.8	7	5
BZT52C10S	9.4	10	10.6	5	20	150	1	0.2	7	4.5	8	5
BZT52C11S	10.4	11	11.6	5	20	150	1	0.1	8	5.4	9	5
BZT52C12S	11.4	12	12.7	5	25	150	1	0.1	8	6	10	5
BZT52C13S	12.4	13	14.1	5	30	170	1	0.1	8	7	11	5
BZT52C15S	13.8	15	15.6	5	30	200	1	0.1	10.5	9.2	13	5
BZT52C16S	15.3	16	17.1	5	40	200	1	0.1	11.2	10.4	14	5
BZT52C18S	16.8	18	19.1	5	45	225	1	0.1	12.6	12.4	16	5
BZT52C20S	18.8	20	21.2	5	55	225	1	0.1	14	14.4	18	5
BZT52C22S	20.8	22	23.3	5	55	250	1	0.1	15.4	16.4	20	5
BZT52C24S	22.8	24	25.6	5	70	250	1	0.1	16.8	18.4	22	5



PART NUMBER	Zener Voltage Range				Dynamic Impedance			Reverse Current		Typical Temperature Coefficient @I _{ZTC} mV/°C		Test Current I _{ZTC}
	V _Z @I _{ZT}			@I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZT} @I _{ZK}	I _{ZK}	I _R	V _R			
	Min(V)	Nom(V)	Max(V)	mA	Ω		mA	μA	V	MIN	MAX	mA
BZT52C27S	25.1	27	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30S	28	30	32	2	80	300	0.5	0.1	21	24.4	29.4	2
BZT52C33S	31	33	35	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36S	34	36	38	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39S	37	39	41	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43S	40	43	46	2	100	700	1	0.1	32	10	12	5
BZT52C47S	44	47	50	2	100	750	1	0.1	35	10	12	5
BZT52C51S	48	51	54	2	100	750	1	0.1	38	10	12	5
BZT52C56S	52	56	60	2	135	750	1	0.1	39	10	12	5
BZT52C62S	58	62	66	2	200	1000	1	0.2	47	10	12	5
BZT52C68S	64	68	72	2	250	1000	1	0.2	52	10	12	5
BZT52C75S	70	75	79	2	250	1000	1	0.2	57	10	12	5

TYPICAL PERFORMANCE CHARACTERISTICS

Fig 1. Power Derating Curve

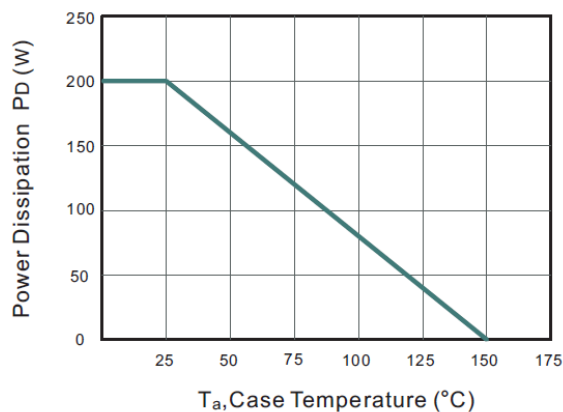
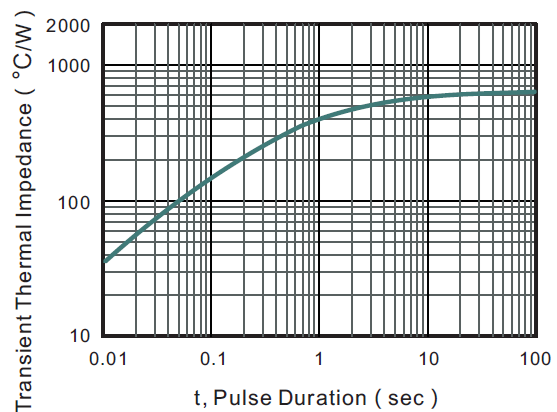


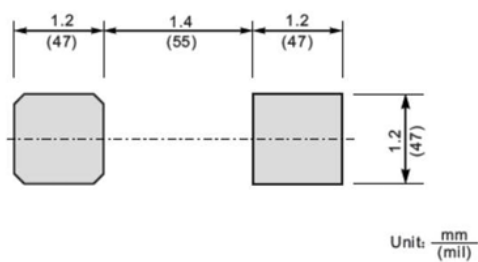
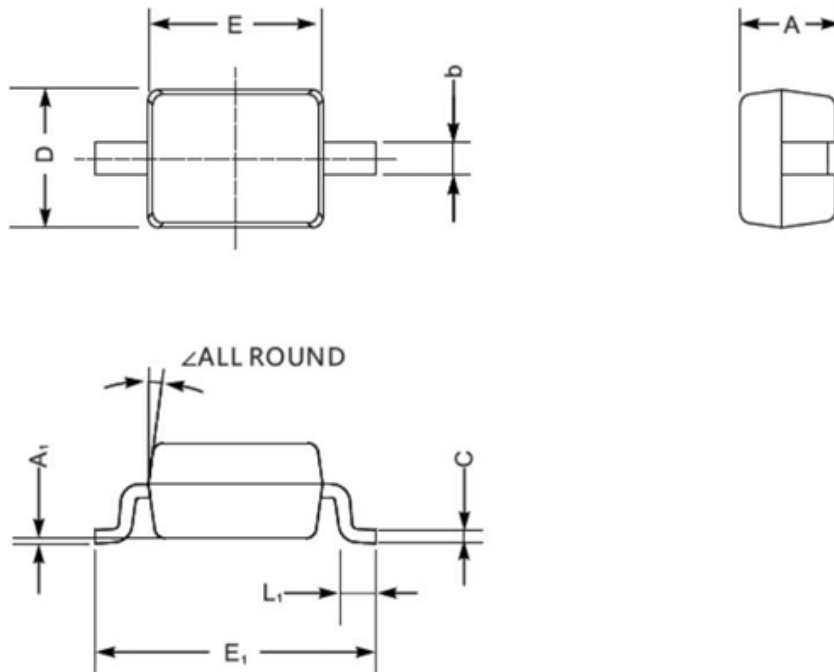
Fig 2. Typical Transient Thermal Impedance





PACKAGE INFORMATION

Dimension in SOD-323 Package



The recommended mounting pad size

DIM	MILLIMETERS	
	MIN	MAX
A	0.800	1.100
A1	-	0.200
b	0.250	0.400
C	0.080	0.150
D	1.200	1.400
E	1.400	1.800
E1	2.550	2.750
L1	0.200	0.450
∠	9°	



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