

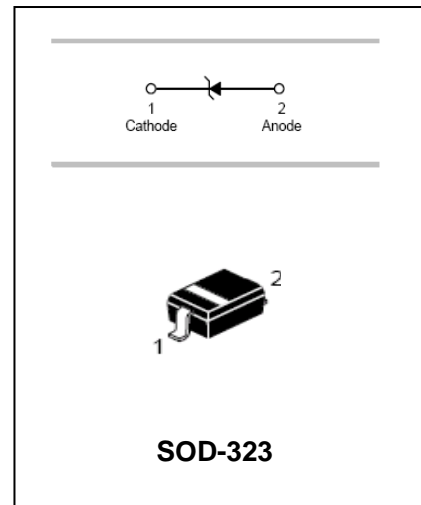
## Surface mount zener diode TBZT52B2V4SG-TBZT52B75SG

### FEATURES

- Wide zener voltage range selection: 2.4V to 75V
- VZ Tolerance selection of  $\pm 2\%$  (B series)
- Ideally suited for automated assembly processes
- Moisture sensitivity level 1
- Qualified to AEC-Q101 Standards for High Reliability
- Non-Halogen



Lead-free



### APPLICATIONS

- Zener diode
- Ultra-small surface mount package

### ORDERING INFORMATION

Type No.	Marking	Package Code
TBZT52B2V4SG-TBZT52B75SG	See table 2	SOD-323

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power Dissipation	P <sub>d</sub> Note2	200	mW
Thermal resistance, junction to ambient air	R <sub>θjA</sub>	625	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-65 to +150	°C

Notes:

1. These ratings are limiting values above which the serviceability of the diodes may be impaired.

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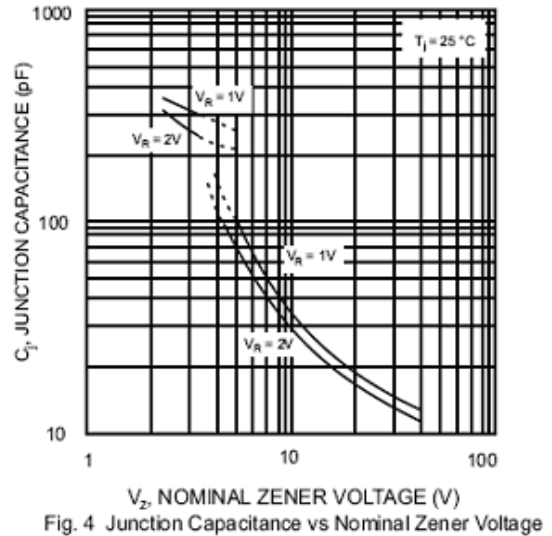
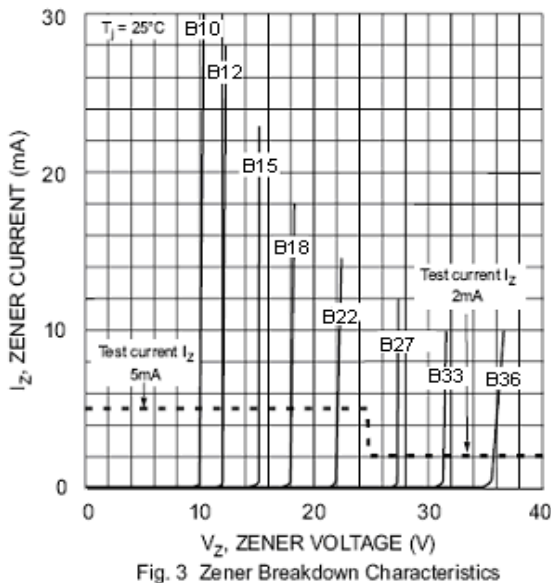
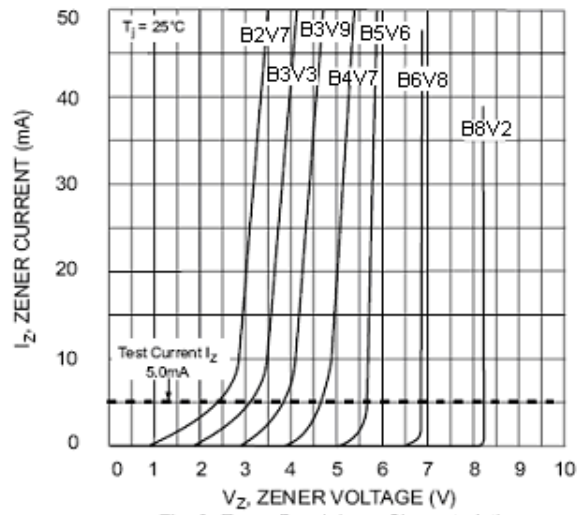
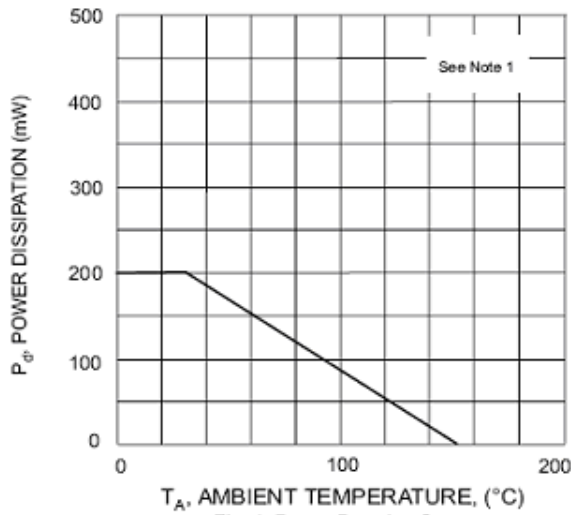
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Temperature Coefficient of zener voltage @ I <sub>ZTC</sub> mV/°C		Maximum Reverse Current	
		V <sub>Z</sub> @I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	I <sub>ZK</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	Min	Max	I <sub>R</sub> μA	@V <sub>R</sub> V
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	Ω				
TBZT52B2V4SG	0Z	2.4	2.35	2.45	5	94	1	564	-3.5	0	45	1
TBZT52B2V7SG	1Z	2.7	2.65	2.75	5	94	1	564	-3.5	0	18	1
TBZT52B3V0SG	2Z	3.0	2.94	3.06	5	89	1	564	-3.5	0	9	1
TBZT52B3V3SG	3Z	3.3	3.23	3.37	5	89	1	564	-3.5	0	4.5	1
TBZT52B3V6SG	4Z	3.6	3.53	3.67	5	84	1	564	-3.5	0	4.5	1
TBZT52B3V9SG	5Z	3.9	3.82	3.98	5	84	1	564	-3.5	0	2.7	1
TBZT52B4V3SG	6Z	4.3	4.21	4.39	5	84	1	564	-3.5	0	2.7	1
TBZT52B4V7SG	7Z	4.7	4.61	4.79	5	75	1	564	-3.5	0.2	2.7	2
TBZT52B5V1SG	8Z	5.1	5.00	5.20	5	56	1	470	-2.7	1.2	1.8	2
TBZT52B5V6SG	9Z	5.6	5.49	5.71	5	37	1	451	-2.0	2.5	0.9	2
TBZT52B6V2SG	AZ	6.2	6.08	6.32	5	9	1	376	0.4	3.7	2.7	4
TBZT52B6V8SG	BZ	6.8	6.66	6.94	5	14	1	141	1.2	4.5	1.8	4
TBZT52B7V5SG	CZ	7.5	7.35	7.65	5	14	1	75	2.5	5.3	0.9	5
TBZT52B8V2SG	DZ	8.2	8.04	8.36	5	14	1	75	3.2	6.2	0.63	5
TBZT52B9V1SG	EZ	9.1	8.92	9.28	5	14	1	94	3.8	7.0	0.45	6
TBZT52B10SG	FZ	10	9.80	10.20	5	18	1	141	4.5	8.0	0.18	7
TBZT52B11SG	GZ	11	10.78	11.22	5	18	1	141	5.4	9.0	0.09	8
TBZT52B12SG	HZ	12	11.76	12.24	5	23	1	141	6.0	10.0	0.09	8
TBZT52B13SG	JZ	13	12.74	13.26	5	28	1	160	7.0	11.0	0.09	8
TBZT52B15SG	KZ	15	14.70	15.30	5	28	1	188	9.2	13.0	0.045	10.5
TBZT52B16SG	LZ	16	15.68	16.32	5	37	1	188	10.4	14.0	0.045	11.2
TBZT52B18SG	MZ	18	17.64	18.36	5	42	1	212	12.4	16.0	0.045	12.6
TBZT52B20SG	NZ	20	19.60	20.40	5	51	1	212	14.4	18.0	0.045	14.0
TBZT52B22SG	PZ	22	21.56	22.44	5	51	1	235	16.4	20.0	0.045	15.4
TBZT52B24SG	RZ	24	23.52	24.48	5	65	1	235	18.4	22.0	0.045	16.8
TBZT52B27SG	SZ	27	26.46	27.54	2	75	0.5	282	21.4	25.3	0.045	18.9
TBZT52B30SG	TZ	30	29.40	30.60	2	75	0.5	282	24.4	29.4	0.045	21.0
TBZT52B33SG	UZ	33	32.34	33.66	2	75	0.5	306	27.4	33.4	0.045	23.0
TBZT52B36SG	VZ	36	35.28	36.72	2	84	0.5	329	30.4	37.4	0.045	25.2
TBZT52B39SG	WZ•	39	38.22	39.78	2	122	0.5	329	33.4	41.2	0.045	27.3
TBZT52B43SG	XZ	43	42.14	43.86	2	141	0.5	353	10.0	12.0	0.045	30.1
TBZT52B47SG	YZ	47	46.06	47.94	2	160	0.5	353	10.0	12.0	0.045	33.0
TBZT52B51SG	ZZ	51	49.98	52.02	2	169	0.5	376	10.0	12.0	0.045	35.7

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Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Temperature Coefficient of zener voltage @		Maximum Reverse Current	
		$V_Z@I_{ZT}$			$I_{ZT}$	$Z_{ZT}@I_{ZT}$	$I_{ZK}$	$Z_{ZK}@I_{ZK}$	Min	Max	$I_R$	@ $V_R$
		Nom(V)	Min(V)	Max(V)	mA	$\Omega$	mA	$\Omega$			$\mu A$	V
TBZT52B56SG	X2•	56	54.88	57.12	2	200	0.5	400	10.0	12.0	0.045	39.2
TBZT52B62SG	X3•	62	60.76	63.24	2	215	0.5	423	10.0	12.0	0.045	43.4
TBZT52B68SG	X4•	68	66.64	69.36	2	240	0.5	447	10.0	12.0	0.045	47.6
TBZT52B75SG	X5•	75	73.5	76.5	2	255	0.5	470	10.0	12.0	0.045	52.5

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

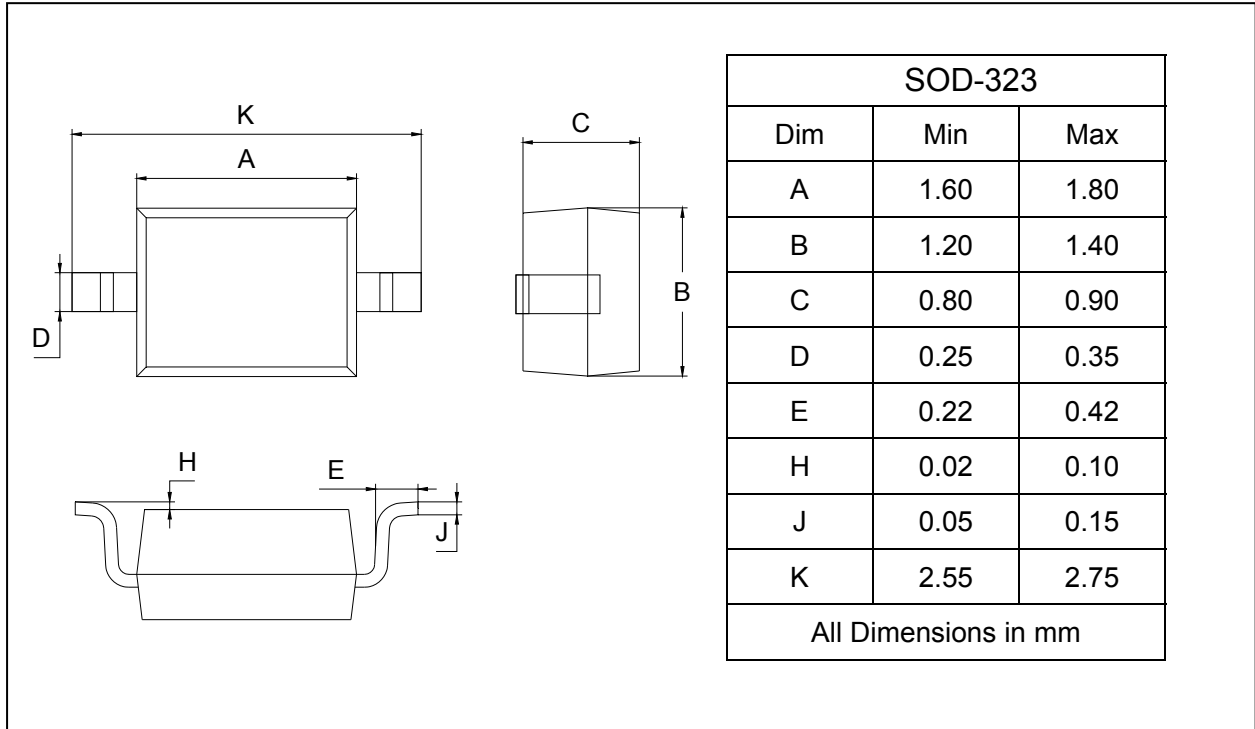


## Surface mount zener diode **TBZT52B2V4SG-TBZT52B75SG**

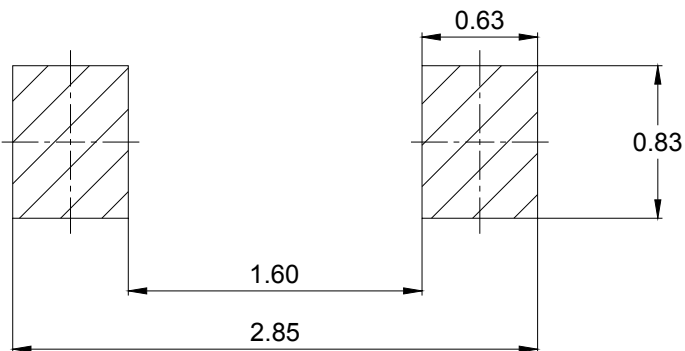
### PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
TBZT52B2V4SG-TBZT52B75SG	SOD-323	3000/Tape&Reel