

## Surface mount zener diode

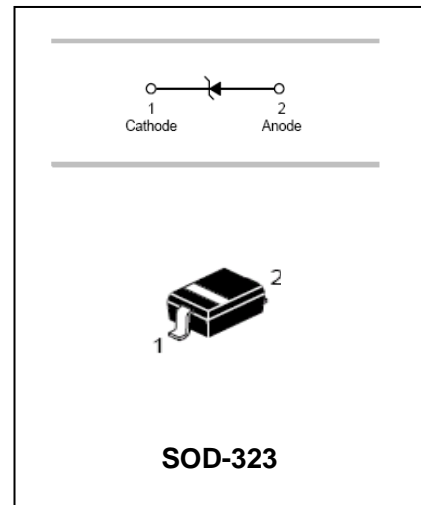
## BZT52B2V4S-BZT52B75S

### 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.



Lead-free



### APPLICATIONS

- Zener diode.
- Ultra-small surface mount package.

### ORDERING INFORMATION

Type No.	Marking	Package Code
BZT52C2V4S-BZT52C39S	See table 2	SOD-323

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F=10\text{mA}$	$V_F$	1	V
Power Dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-65 to +150	$^\circ\text{C}$

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

# Diode Semiconductor Korea

## Surface mount zener diode

## BZT52B2V4S-BZT52B75S

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			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>	I <sub>R</sub>	@V <sub>R</sub>
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	Ω	μA	V
BZT52B2V4S	0Z	2.4	2.35	2.45	5	94	1	564	45	1
BZT52B2V7S	1Z	2.7	2.65	2.75	5	94	1	564	18	1
BZT52B3V0S	2Z	3.0	2.94	3.06	5	89	1	564	9	1
BZT52B3V3S	3Z	3.3	3.23	3.37	5	89	1	564	4.5	1
BZT52B3V6S	4Z	3.6	3.53	3.67	5	84	1	564	4.5	1
BZT52B3V9S	5Z	3.9	3.82	3.98	5	84	1	564	2.7	1
BZT52B4V3S	6Z	4.3	4.21	4.39	5	84	1	564	2.7	1
BZT52B4V7S	7Z	4.7	4.61	4.79	5	75	1	564	2.7	2
BZT52B5V1S	8Z	5.1	5.00	5.20	5	56	1	470	1.8	2
BZT52B5V6S	9Z	5.6	5.49	5.71	5	37	1	451	0.9	2
BZT52B6V2S	AZ	6.2	6.08	6.32	5	9	1	376	2.7	4
BZT52B6V8S	BZ	6.8	6.66	6.94	5	14	1	141	1.8	4
BZT52B7V5S	CZ	7.5	7.35	7.65	5	14	1	75	0.9	5
BZT52B8V2S	DZ	8.2	8.04	8.36	5	14	1	75	0.63	5
BZT52B9V1S	EZ	9.1	8.92	9.28	5	14	1	94	0.45	6
BZT52B10S	FZ	10	9.80	10.20	5	18	1	141	0.18	7
BZT52B11S	GZ	11	10.78	11.22	5	18	1	141	0.09	8
BZT52B12S	HZ	12	11.76	12.24	5	23	1	141	0.09	8
BZT52B13S	JZ	13	12.74	13.26	5	28	1	160	0.09	8
BZT52B15S	KZ	15	14.70	15.30	5	28	1	188	0.045	10.5
BZT52B16S	LZ	16	15.68	16.32	5	37	1	188	0.045	11.2
BZT52B18S	MZ	18	17.64	18.36	5	42	1	212	0.045	12.6
BZT52B20S	NZ	20	19.60	20.40	5	51	1	212	0.045	14.0
BZT52B22S	PZ	22	21.56	22.44	5	51	1	235	0.045	15.4
BZT52B24S	RZ	24	23.52	24.48	5	65	1	235	0.045	16.8
BZT52B27S	SZ	27	26.46	27.54	5	75	0.5	282	0.045	18.9
BZT52B30S	TZ	30	29.40	30.60	5	75	0.5	282	0.045	21.0
BZT52B33S	UZ	33	32.34	33.66	5	75	0.5	306	0.045	23.0
BZT52B36S	VZ	36	35.28	36.72	5	84	0.5	329	0.045	25.2
BZT52B39S	WZ	39	38.22	39.78	5	122	0.5	329	0.045	27.3
BZT52B43S	XZ	43	42.14	43.86	5	141	0.5	353	0.045	30.1
BZT52B47S	YZ	47	46.06	47.94	5	160	0.5	353	0.045	33.0
BZT52B51S	-Z	51	49.98	52.02	5	169	0.5	376	0.045	35.7

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## Surface mount zener diode

## BZT52B2V4S-BZT52B75S

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			$I_{ZT}$	$Z_{ZT}@I_{ZT}$	$I_{ZK}$	$Z_{ZK}@I_{ZK}$	$I_R$	@ $V_R$
		Nom(V)	Min(V)	Max(V)	mA	$\Omega$	mA	$\Omega$	$\mu A$	V
BZT52B56S	=Z	56	54.88	57.12	5	188	0.5	400	0.045	39.2
BZT52B62S	$\equiv$ Z	62	60.76	63.24	5	202	0.5	423	0.045	43.4
BZT52B68S	>Z	68	66.64	69.36	5	226	0.5	447	0.045	47.6
BZT52B75S	<Z	75	73.5	76.50	5	240	0.5	470	0.045	52.5

Notes: 1. The zener voltage ( $V_Z$ ) is tested under pulse condition of 10ms.

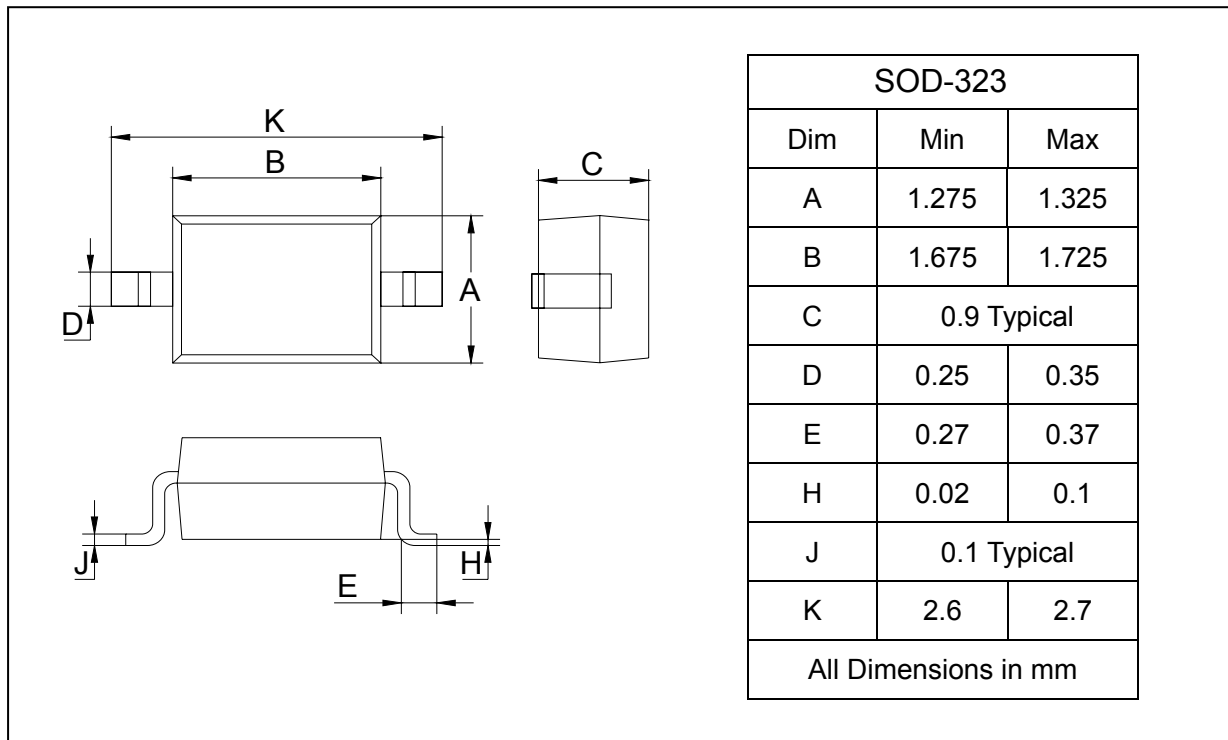
2. The device numbers listed have a standard tolerance on the nominal zener voltage of  $\pm 2\%$ .

3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current ( $I_{ZT}$  or  $I_{ZK}$ ) is superimposed to  $I_{ZT}$  or  $I_{ZK}$ .

## PACKAGE OUTLINE

Plastic surface mounted package

SOD-323

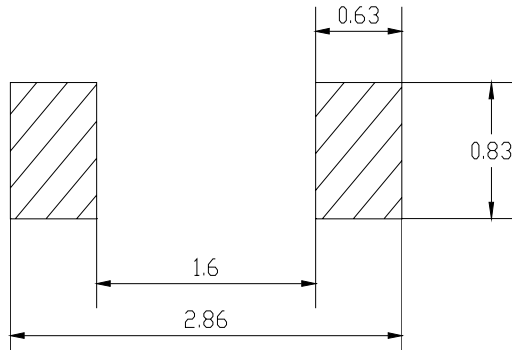


# Diode Semiconductor Korea

**Surface mount zener diode**

**BZT52B2V4S-BZT52B75S**

## SOLDERING FOOTPRINT



Unit : mm

## PACKAGE INFORMATION

Device	Package	Shipping
BZT52B2V4S-BZT52B75S	SOD-323	3000/Tape&Reel