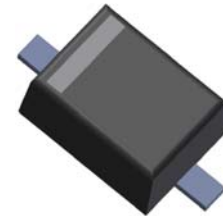


200mW SOD-323 SURFACE MOUNT Small Outline Flat Lead Plastic Package Zener Voltage Regulators

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	200	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_{OPR}	Operating Temperature Range	-65 to +150	$^\circ\text{C}$

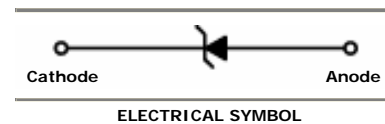
These ratings are limiting values above which the serviceability of the diode may be impaired.



SOD-323 Flat Lead

Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- VZ Tolerance Selection of $\pm 2\%$ (B Series)
- Flat Lead SOD-323 Small Outline Plastic Package
- Surface Device Type Mounting
- Moisture Sensitivity Level 1
- Clip Bonding Construction, Good Thermal Capability
- Pb Free Version and RoHS Compliant
- Matte Tin(Sn) Lead Finish with Nickel(Ni) Underplate
- Band Indicates Cathode



Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
TC2V4B	0Z	2.35	2.4	2.45	5	100	1	564	45	1
TC2V7B	1Z	2.65	2.7	2.75	5	100	1	564	18	1
TC3V0B	2Z	2.94	3.0	3.06	5	100	1	564	9	1
TC3V3B	3Z	3.23	3.3	3.37	5	95	1	564	4.5	1
TC3V6B	4Z	3.53	3.6	3.67	5	90	1	564	4.5	1
TC3V9B	5Z	3.82	3.9	3.98	5	90	1	564	2.7	1
TC4V3B	6Z	4.21	4.3	4.39	5	90	1	564	2.7	1
TC4V7B	7Z	4.61	4.7	4.79	5	80	1	470	2.7	2
TC5V1B	8Z	5.00	5.1	5.20	5	60	1	451	1.8	2
TC5V6B	9Z	5.49	5.6	5.71	5	40	1	376	0.9	2
TC6V2B	AZ	6.08	6.2	6.32	5	10	1	141	2.7	4
TC6V8B	BZ	6.66	6.8	6.94	5	15	1	75	1.8	4
TC7V5B	CZ	7.35	7.5	7.65	5	15	1	75	0.9	5
TC8V2B	DZ	8.04	8.2	8.36	5	15	1	75	0.63	5
TC9V1B	EZ	8.92	9.1	9.28	5	15	1	94	0.45	6
TC10VB	FZ	9.80	10	10.20	5	20	1	141	0.18	7
TC11VB	GZ	10.78	11	11.22	5	20	1	141	0.09	8
TC12VB	HZ	11.76	12	12.24	5	25	1	141	0.09	8
TC13VB	JZ	12.74	13	13.26	5	30	1	160	0.09	8
TC15VB	KZ	14.70	15	15.30	5	30	1	188	0.045	10.5
TC16VB	LZ	15.68	16	16.32	5	40	1	188	0.045	11.2
TC18VB	MZ	17.64	18	18.36	5	45	1	212	0.045	12.6
TC20VB	NZ	19.60	20	20.40	5	55	1	212	0.045	14.0

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

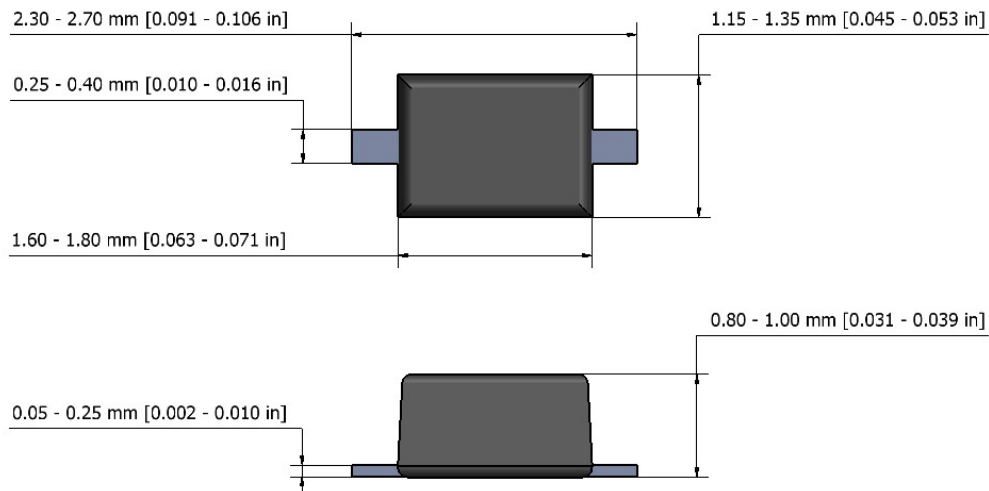
Device Type	Device Marking	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
		Min	Nom	Max						
TC22VB	PZ	21.56	22	22.44	5	55	1	235	0.045	15.4
TC24VB	RZ	23.52	24	24.48	5	70	1	235	0.045	16.8
TC27VB	SZ	26.46	27	27.54	5	80	0.5	282	0.045	18.9
TC30VB	TZ	29.40	30	30.60	5	80	0.5	282	0.045	21.0
TC33VB	UZ	32.34	33	33.66	5	80	0.5	306	0.045	23.0
TC36VB	VZ	35.28	36	36.72	5	90	0.5	329	0.045	25.2
TC39VB	WZ	38.22	39	39.78	5	130	0.5	329	0.045	27.3
TC43VB	XZ	42.14	43	43.86	5	150	0.5	353	0.045	30.1
TC47VB	YZ	46.06	47	47.94	5	170	0.5	353	0.045	33.0
TC51VB	-Z	49.98	51	52.02	5	180	0.5	376	0.045	35.7
TC56VB	=Z	54.88	56	57.12	5	200	0.5	400	0.045	39.2
TC62VB	\equiv Z	60.76	62	63.24	5	215	0.5	423	0.045	43.4
TC68VB	>Z	66.64	68	69.36	5	240	0.5	447	0.045	47.6
TC75VB	<Z	73.50	75	76.50	5	255	0.5	470	0.045	52.5

V_F Forward Voltage = 1 V Maximum @ $I_F = 100$ mA for all types

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. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
4. 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} .

SOD-323 Package Outline




NOTE: The above package outline is similar to JEITA SC-90.

This datasheet presents technical data of Tak Cheong's Zener Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <http://www.takcheong.com>.

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