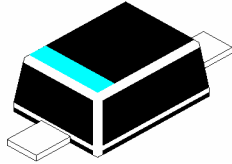


SURFACE MOUNT SILICON ZENER DIODES

BZT52C 2V4S to 39S



SOD-323

PLASTIC PACKAGE

Marking: As Indicated below with Cathode Band

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Maximum Forward Voltage Drop at $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation at 25°C	$*P_D$	200	mW
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$**I_{FSM}$	2.0	A
Operating Junction and Storage Temperature Range	T_j	- 55 to +150	°C

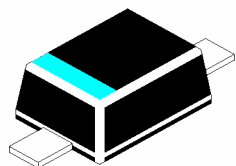
* Mounted on 5.0mm² (0.13mm thick) land areas

** Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$ unless specified otherwise) V_F at 10mA <0.9V

Device #	Zener Voltage		Zener Impedance				Reverse Leakage		Marking Code
	V_Z at I_{ZT}		Z_{ZT} at I_{ZT}		Z_{ZK} at I_{ZK}		I_R at	V_R	
	(V)		(W)	(mA)	(W)	(mA)	(mA)	(V)	
	min	max	max		max		max		
BZT52C 2V4S	2.28	2.52	85	5.0	500	1.0	100	1.0	W1
BZT52C 2V7S	2.57	2.84	83	5.0	500	1.0	75	1.0	W2
BZT52C 3V0S	2.85	3.15	95	5.0	500	1.0	50	1.0	W3
BZT52C 3V3S	3.14	3.47	95	5.0	500	1.0	25	1.0	W4
BZT52C 3V6S	3.42	3.78	95	5.0	500	1.0	15	1.0	W5
BZT52C 3V9S	3.71	4.10	95	5.0	500	1.0	10	1.0	W6
BZT52C 4V3S	4.09	4.52	95	5.0	500	1.0	5.0	1.0	W7
BZT52C 4V7S	4.47	4.94	78	5.0	500	1.0	5.0	2.0	W8
BZT52C 5V1S	4.85	5.36	60	5.0	480	1.0	0.1	0.8	W9
BZT52C 5V6S	5.32	5.88	40	5.0	400	1.0	0.1	1.0	WA
BZT52C 6V2S	5.89	6.51	10	5.0	200	1.0	0.1	2.0	WB
BZT52C 6V8S	6.46	7.14	8	5.0	150	1.0	0.1	3.0	WC
BZT52C 7V5S	7.13	7.88	7	5.0	50	1.0	0.1	5.0	WD
BZT52C 8V2S	7.79	8.61	7	5.0	50	1.0	0.1	6.0	WE
BZT52C 9V1S	8.65	9.56	10	5.0	50	1.0	0.1	7.0	WF
BZT52C 10S	9.50	10.50	15	5.0	70	1.0	0.1	7.5	WG
BZT52C 11S	10.45	11.55	20	5.0	70	1.0	0.1	8.5	WH
BZT52C 12S	11.40	12.60	20	5.0	90	1.0	0.1	9.0	WI
BZT52C 13S	12.35	13.65	25	5.0	110	1.0	0.1	10	WK
BZT52C 15S	14.25	15.75	30	5.0	110	1.0	0.1	11	WL
BZT52C 16S	15.20	16.80	40	5.0	170	1.0	0.1	12	WM
BZT52C 18S	17.10	18.90	50	5.0	170	1.0	0.1	14	WN
BZT52C 20S	19.00	21.00	50	5.0	220	1.0	0.1	15	WO

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PLASTIC PACKAGE

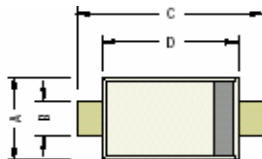
Marking: As Indicated below with Cathode Band

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise) V_F at 10mA <0.9V

BZT52C 22S	20.90	23.10	55	5.0	220	1.0	0.1	17	WP
BZT52C 24S	22.80	25.20	80	5.0	220	1.0	0.1	18	WR
BZT52C 27S	25.65	28.35	80	5.0	250	1.0	0.1	20	WS
BZT52C 30S	28.50	31.50	80	5.0	250	1.0	0.1	22.5	WT
BZT52C 33S	31.35	34.65	80	5.0	250	1.0	0.1	25	WU
BZT52C 36S	34.20	37.80	90	5.0	250	1.0	0.1	27	WW
BZT52C 39S	37.05	40.95	90	5.0	300	1.0	0.1	29	WX

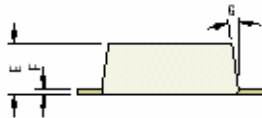
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SOD-323 PLASTIC PACKAGE



DIM	Min	Max
A	1.15	1.35
B	0.25	0.40
C	2.30	2.80
D	1.60	1.80

DIM	Min	Max
E	0.80	1.10
F	0.00	0.15
G	5°	



Cathode is marked by a Band

Packaging Specifications ...

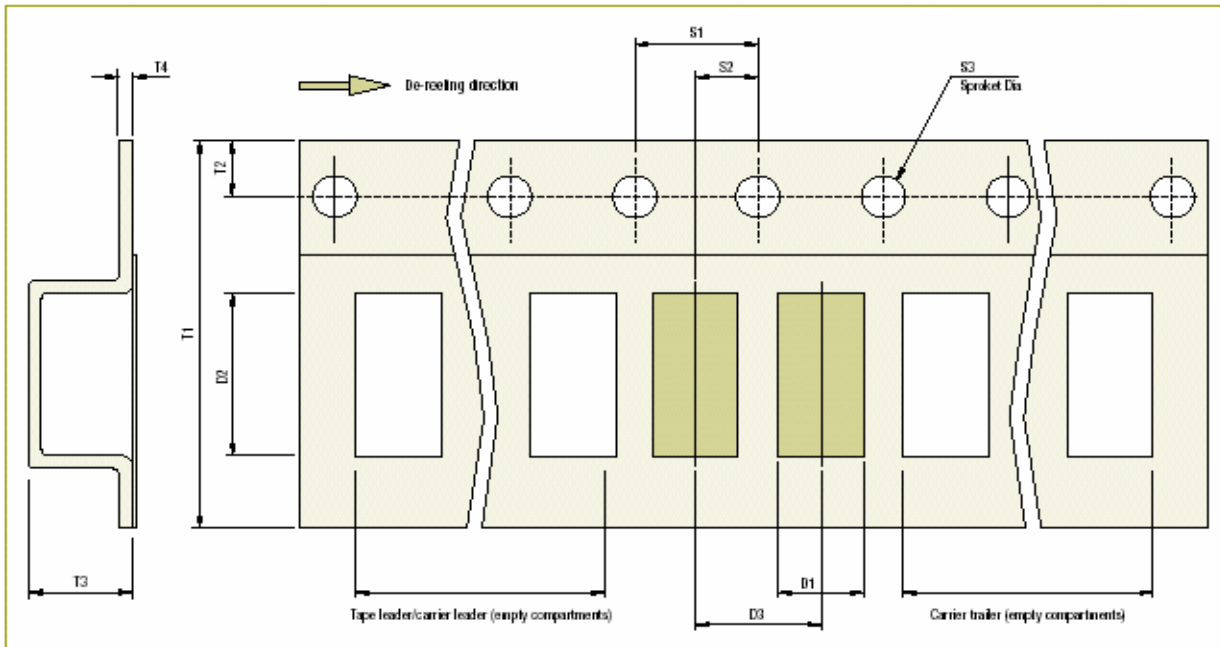
T & A: Tape and Ammo Pack; T & R: Tape and Reel; Bulk: Loose in Poly Bags; Tube: Tube and Carton; K: 1,000

Package / Case Type	Packaging Type	Std. Packing	Inner Carton			Outer Carton		
		Qty	Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)

SMD Glass/Plastic Packages

SOD-323	T & R	3,000	15K	19 x 19 x 8	1.0	45K	23 x 23 x 23	2.9
	T & R	10,000	50K	33 x 33 x 1.3	2.6	300K	48 x 48 x 51	17.4

Packaging Tape Specifications for SMD Packages



SMD Tape Specifications (8-12 mm)

Device	D1	D2	D3	T1	T2	T3	T4	S1	S2	S3
						Max	Max			Dia
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SOD-323	2.3±0.1	3.5±0.1	4.0±0.1	8.3±0.1	1.75±0.1	2.26	0.26	4.0±0.1	2.0±0.1	1.5±0.1

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Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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