

**BZT52CXXXS****ZENER DIODE****SURFACE MOUNT ZENER DIODE****DESCRIPTION**

The UTC **BZT52CXXXS** is surface mount zener diode. it uses UTC's advanced technology to provide the customers with low leakage current, etc.

The UTC **BZT52CXXXS** is suitable for automated assembly processes, etc.

FEATURES

* Low leakage current

SYMBOL

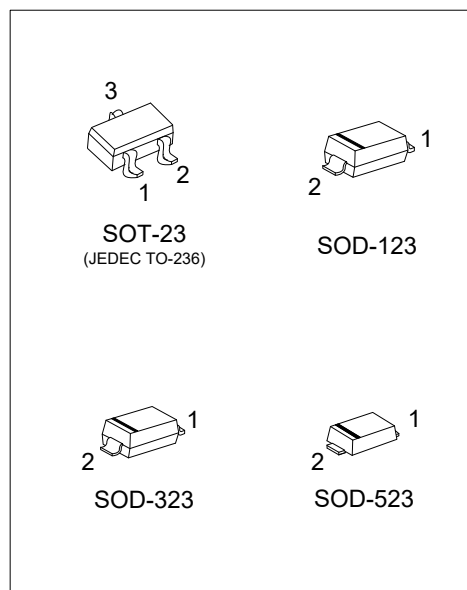
SOT-23	SOD-123 / SOD-323 / SOD-523

ORDERING INFORMATION

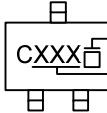
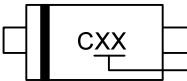
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BZT52CXXXSL-AE3-R	BZT52CXXXSG-AE3-R	SOT-23	A	NC	K	Tape Reel
BZT52CXXXSL-CA2-R	BZT52CXXXSG-CA2-R	SOD-123	A	K	-	Tape Reel
BZT52CXXXSL-CB2-R	BZT52CXXXSG-CB2-R	SOD-323	A	K	-	Tape Reel
BZT52CXXXSL-CC2-R	BZT52CXXXSG-CC2-R	SOD-523	A	K	-	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

	(1) R: Tape Reel (2) AE3: SOT-23, CA2: SOD-123, CB2 : SOD-323 CC2: SOD-523 (3) G: Halogen Free and Lead Free, L: Lead Free (4) XXX: 5.0: 5.0V, 6.0: 6.0V... 75: 75V
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■ MARKING INFORMATION

PACKAGE	VOLTAGE CODE		MARKING
SOT-23	V: 2.0V A: 2.4V C: 2.7V E: 3.0V F: 3.3V G: 3.6V H: 3.9V J: 4.3V K: 4.7V L: 5.1V M: 5.6V P: 6.2V Q: 6.8V R: 7.5V S: 8.2V U: 9.1V	10: 10V 11: 11V 12: 12V 13: 13V 15: 15V 16: 16V 18: 18V 20: 20V 22: 22V 24: 24V 27: 27V 30: 30V 33: 33V 36: 36V 39: 39V	 L: Lead Free G: Halogen Free Voltage Code
SOD-123 SOD-323 SOD-523			 Voltage Code

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

Single phase, half wave, 60Hz, resistive or inductive load. For capacitance load, derate current by 20%.

PARAMETER		SYMBOL	RATINGS	UNIT
Forward Voltage	I _F =10mA	V _F	0.9	V
Thermal characteristics				
Power Dissipation (Note 2)	SOT-23	P _D	200	mW
	SOD-123		500	mW
	SOD-323		330	
	SOD-523		250	mW
Operating Temperature		T _J	-55 ~ +150	°C
Storage Temperature		T _{STG}	-55 ~ +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. Mounted on 5.0mm² (.013mm thick) land areas.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

(V_F = 0.9V Max @ I_F = 10mA for all types.)

Part Number	Marking Code	Nominal Zener Voltage			Max Zener Impedance				Max Reverse Leakage Current (Note)	
		V _Z @ I _{ZT} (V)			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
		MIN	TYP	MAX	(Ω)	(mA)	(Ω)	(mA)	(μA)	(V)
BZT52C2V0S	V	1.91	2.00	2.09	100	5	600	1.0	150	1.0
BZT52C2V4S	A	2.20	2.40	2.60	100	5	600	1.0	50	1.0
BZT52C2V7S	C	2.50	2.70	2.90	100	5	600	1.0	20	1.0
BZT52C3S	E	2.80	3.00	3.20	100	5	600	1.0	10	1.0
BZT52C3V3S	F	3.10	3.30	3.50	95	5	600	1.0	5	1.0
BZT52C3V6S	G	3.40	3.60	3.80	95	5	600	1.0	5	1.0
BZT52C3V9S	H	3.70	3.90	4.10	90	5	600	1.0	3	1.0
BZT52C4V3S	J	4.00	4.30	4.60	90	5	600	1.0	3	1.0
BZT52C4V7S	K	4.40	4.70	5.00	90	5	500	1.0	2	2.0
BZT52C5V1S	L	4.80	5.10	5.40	60	5	480	1.0	1	2.0
BZT52C5V6S	M	5.20	5.60	6.00	40	5	400	1.0	3	2.0
BZT52C6V2S	P	5.80	6.20	6.60	10	5	150	1.0	2	4.0
BZT52C6V8S	Q	6.40	6.80	7.20	15	5	80	1.0	1	4.0
BZT52C7V5S	R	7.00	7.50	7.90	15	5	80	1.0	0.7	5.0
BZT52C8V2S	S	7.70	8.20	8.70	15	5	80	1.0	0.5	5.0
BZT52C9V1S	U	8.50	9.10	9.60	15	5	100	1.0	0.2	6.0
BZT52C10S	10	9.40	10.00	10.60	15	5	150	1.0	0.1	7.0
BZT52C11S	11	10.40	11.00	11.60	15	5	150	1.0	0.1	8.0
BZT52C12S	12	11.40	12.00	12.70	25	5	150	1.0	0.1	8.0
BZT52C13S	13	12.40	13.00	14.10	30	5	170	1.0	0.1	8.0
BZT52C15S	15	13.80	15.00	15.60	30	5	200	1.0	0.1	10.5
BZT52C16S	16	15.30	16.00	17.10	40	5	200	1.0	0.1	11.2
BZT52C18S	18	16.80	18.00	19.10	45	5	225	1.0	0.1	12.6
BZT52C20S	20	18.80	20.00	21.20	55	5	225	1.0	0.1	14.4
BZT52C22S	22	20.80	22.00	23.30	55	5	250	1.0	0.1	16.4
BZT52C24S	24	22.80	24.00	25.60	70	5	250	1.0	0.1	18.4
BZT52C27S	27	25.10	27.00	28.90	80	2	300	0.5	0.1	21.4
BZT52C30S	30	28.00	30.00	32.00	80	2	300	0.5	0.1	24.4
BZT52C33S	33	31.00	33.00	35.00	80	2	325	0.5	0.1	27.4

■ ELECTRICAL CHARACTERISTICS (Cont.)

Part Number	Marking Code	Nominal Zener Voltage			Max Zener Impedance				Max Reverse Leakage Current (Note)	
		V _Z @ I _{ZT} (V)			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
		MIN	TYP	MAX	(Ω)	(mA)	(Ω)	(mA)	(μA)	(V)
BZT52C36S	36	34.00	36.00	38.00	90	2	350	0.5	0.1	30.4
BZT52C39S	39	37.00	39.00	41.00	130	2	350	0.5	0.1	33.4

Note: Short duration pulse test used to minimize self-heating effect.

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