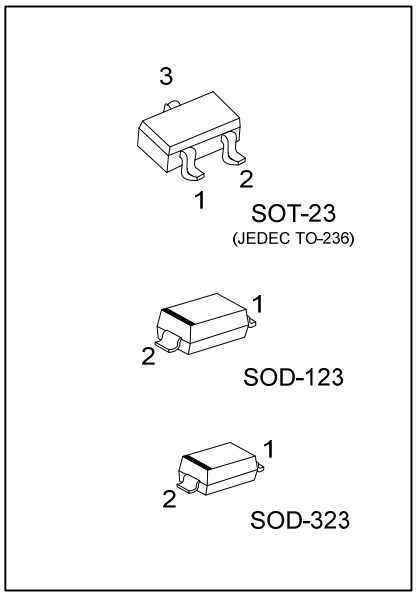
BZT52CXXXS

ZENER DIODE

SURFACE MOUNT ZENER DIODE



■ DESCRIPTION

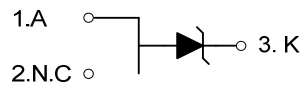
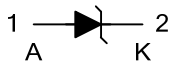
The UTC **BZT52CXXXS** is surface mount zener diode. it uses UTC's advanced technology to provide the customers with low leakage current, etc.

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

■ FEATURES

* Low leakage current

■ SYMBOL

SOT-23	SOD-123 / SOD-323
	

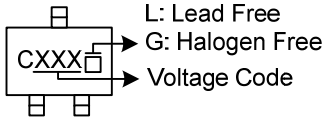
■ ORDERING INFORMATION

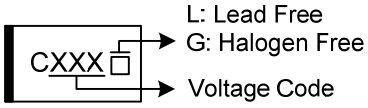
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BZT52CXXXSL-AE3-R	BZT52CXXXSG-AE3-R	SOT-23	A	NC	K	Tape Reel
BZT52CXXXSL-CA2-R	BZT52CXXXSG-CA2-R	SOD-123	A	K	-	Tape Reel
BZT52CXXXSL-CB2-R	BZT52CXXXSG-CB2-R	SOD-323	A	K	-	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

BZT52CXXXSG-AE3-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) AE3: SOT-23, CA2: SOD-123, CB2: SOD-323 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING INFORMATION

<table>
<tr><th>PACKAGE</th><th colspan="2">VOLTAGE CODE</th><th>MARKING</th></tr>
<tr><td>SOT-23</td><td>2.0: 2.0V
2.4: 2.4V
2.7: 2.7V
3.0: 3.0V
3.3: 3.3V
3.6: 3.6V
3.9: 3.9V
4.3: 4.3V</td><td>10: 10V
11: 11V
12: 12V
13: 13V
15: 15V
16: 16V
18: 18V
20: 20V</td><td rowspan="2"> 
</td></tr>
<tr><td>SOD-123
SOD-323</td><td>4.7: 4.7V
5.1: 5.1V
5.6: 5.6V
6.2: 6.2V
6.8: 6.8V
7.5: 7.5V
8.2: 8.2V
9.1: 9.1V</td><td>22: 22V
24: 24V
27: 27V
30: 30V
33: 33V
36: 36V
39: 39V</td></tr>
</table>



■ 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 (Note)	I_F=10mA	V_F	0.9	V
Thermal characteristics				
Power Dissipation	SOT-23	P_D	410	mW
	SOD-123 SOD-323		200	mW
Operating Temperature		T_J	-55 ~ +150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: 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.

■ 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	2.0	1.91	2.00	2.09	100	5	600	1.0	150	1.0
BZT52C2V4S	2.4	2.20	2.40	2.60	100	5	600	1.0	50	1.0
BZT52C2V7S	2.7	2.50	2.70	2.90	100	5	600	1.0	20	1.0
BZT52C3S	3.0	2.80	3.00	3.20	100	5	600	1.0	10	1.0
BZT52C3V3S	3.3	3.10	3.30	3.50	95	5	600	1.0	5	1.0
BZT52C3V6S	3.6	3.40	3.60	3.80	95	5	600	1.0	5	1.0
BZT52C3V9S	3.9	3.70	3.90	4.10	90	5	600	1.0	3	1.0
BZT52C4V3S	4.3	4.00	4.30	4.60	90	5	600	1.0	3	1.0
BZT52C4V7S	4.7	4.40	4.70	5.00	90	5	500	1.0	2	2.0
BZT52C5V1S	5.1	4.80	5.10	5.40	60	5	480	1.0	1	2.0
BZT52C5V6S	5.6	5.20	5.60	6.00	40	5	400	1.0	3	2.0
BZT52C6V2S	6.2	5.80	6.20	6.60	10	5	150	1.0	2	4.0
BZT52C6V8S	6.8	6.40	6.80	7.20	15	5	80	1.0	1	4.0
BZT52C7V5S	7.5	7.00	7.50	7.90	15	5	80	1.0	0.7	5.0
BZT52C8V2S	8.2	7.70	8.20	8.70	15	5	80	1.0	0.5	5.0
BZT52C9V1S	9.1	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
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.