

**SURFACE MOUNT ZENER DIODE**

**VOLTAGE RANGE 2.4 to 39 Volts POWER RATING 350 mWatts**

**FEATURES**

- \* Planar Die Construction
- \* 350mW Power Dissipation
- \* Zener Volages from 2.4V-39V
- \* Ideally Suited for Automated Assembly Processes

**MECHANICAL DATA**

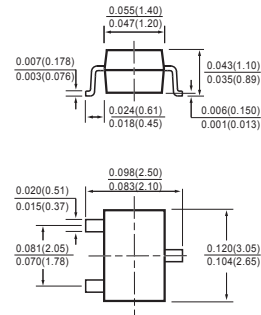
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.



**SOT-23**



**MAXIMUM RATINGS** ( @ TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	VALUE	UNITS
Max. Steady State Power Dissipation @TA=25°C (Note 1)	PD	350	mW
Max. Operating Temperature Range	TJ	150	°C
Storage Temperature Range	TSTG	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS** ( @ TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient (Note 1)	R θJA	-	-	357	°C/W
Forward Voltage at IF= 10mA	VF	-	-	0.9	Volts

Note 1. Valid provided that device terminats are kept at ambient temperature.  
2. "Fully RoHS Compliant", "100% Sn plating (Pb-free)".

## ELECTRICAL CHARACTERISTICS (@T<sub>A</sub>=25°C unless otherwise specified)

TYPE	Zener voltage Range (Note 1) V <sub>Z</sub> (V) @ I <sub>ZT</sub>			Test current	Maximum Zener impedance (Note 2)			Maximum reverse leakage current		Temperature Coefficient of Zener voltage @I <sub>ZT</sub> =5mA mV/°C	
	Nom	Min	Max		I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> at I <sub>ZT</sub> (Ω)	Z <sub>ZK</sub> (Ω)	at I <sub>ZK</sub> (mA)	I <sub>R</sub> (uA)	at V <sub>R</sub> (V)	Min.
	Volts	Volts	Volts								
BZX84C2V4	2.4	2.2	2.6	5.0	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7	2.7	2.5	2.9	5.0	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0	3.0	2.8	3.2	5.0	95	600	1.0	10	1.0	-3.5	0
BZX84C3V3	3.3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	-3.5	0
BZX84C3V6	3.6	3.4	3.8	5.0	90	600	1.0	5.0	1.0	-3.5	0
BZX84C3V9	3.9	3.7	4.1	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V3	4.3	4.0	4.6	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V7	4.7	4.4	5.0	5.0	80	600	1.0	3.0	2.0	-3.5	0.2
BZX84C5V1	5.1	4.8	5.4	5.0	60	500	1.0	2.0	2.0	-2.7	1.2
BZX84C5V6	5.6	5.2	6.0	5.0	40	480	1.0	1.0	2.0	-2.0	2.5
BZX84C6V2	6.2	5.8	6.6	5.0	10	400	1.0	3.0	4.0	0.4	3.7
BZX84C6V8	6.8	6.4	7.2	5.0	15	150	1.0	2.0	4.0	1.2	4.5
BZX84C7V5	7.5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	2.5	5.3
BZX84C8V2	8.2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1	9.1	8.5	9.6	5.0	15	80	1.0	0.5	6.0	3.8	7.0
BZX84C10	10	9.4	10.6	5.0	20	100	1.0	0.2	7.0	4.5	8.0
BZX84C11	11	10.4	11.6	5.0	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12	12	11.4	12.7	5.0	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13	13	12.4	14.1	5.0	30	150	1.0	0.1	8.0	7.0	11.0
BZX84C15	15	13.8	15.6	5.0	30	170	1.0	0.1	10.5	9.2	13.0
BZX84C16	16	15.3	17.1	5.0	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18	18	16.8	19.1	5.0	45	200	1.0	0.1	12.6	12.4	16.0
BZX84C20	20	18.8	21.2	5.0	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22	22	20.8	23.3	5.0	55	225	1.0	0.1	15.4	16.4	20.0
BZX84C24	24	22.8	25.6	5.0	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27	27	25.1	28.9	2.0	80	250	0.5	0.1	18.9	21.4	25.3
BZX84C30	30	28.0	32	2.0	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33	33	31.0	35	2.0	80	325	0.5	0.1	23.1	27.4	33.4
BZX84C36	36	34.0	38	2.0	90	350	0.5	0.1	25.2	30.4	37.4
BZX84C39	39	37.0	41	2.0	130	350	0.5	0.1	27.3	33.4	41.2

Notes 1. Tested with pulses, period - 5ms, pulse width - 30uS.  
2. f = 1KHz.



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