

**SILICON PLANAR VOLTAGE REGULATOR DIODE**

**FEATURES**

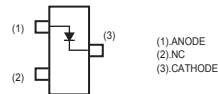
- \* Zener Voltage Range 4.7 to 36 Volts
- \* SOT-23 Package
- \* Low Voltage General Purpose Voltage Regulator Diode

**MECHANICAL DATA**

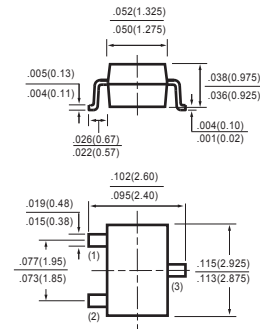
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.



**SOT-23**



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

RATINGS	SYMBOL	VALUE	UNITS
Working Voltage Tolerance		± 5	%
Repetitive Peak Forward Current	IFRM	250	mA
Repetitive Peak Working Current	IZRM	250	mA
Power Dissipation @TA=25°C (Note 1)	PD	300	mW
Power Dissipation @Tc=25°C (Note 2)	PD	250	mW
Max. Operating Temperature Range	TJ	150	°C
Storage Temperature Range	TSTG	-65 to +150	°C

**THERMAL RESISTANCE ( @ TA = 25°C unless otherwise noted )**

DESCRIPTION	SYMBOL	TYP.	UNITS
Thermal Resistance Junction to Ambient (Note 1)	R θJA	420	°C/W

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

CHARACTERISTICS	SYMBOL	TYP.	UNITS
Forward Voltage at IF= 100mA	VF	1.0	Volts

- Note 1. Device mounted on a ceramic alumina.  
 2. Device mounted on a FR5 printed circuit board.  
 3. "Fully RoHS Compliant", "100% Sn plating (Pb-free)".

## ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise specified)

TYPE	V <sub>ZT</sub> @I <sub>ZT</sub> (V)		R <sub>ZT</sub> @I <sub>ZT</sub> (Ω) MAX	I <sub>ZT</sub> (mA)	I <sub>R</sub> @T <sub>A</sub> =25°C (μA) MAX	V <sub>R</sub> (V)	MARKING
	MIN	MAX					
BZX84C 4.7BS	4.47	4.91	100	5.0	5.0	1.0	4V7
BZX84C 4.7BSA	4.47	4.65					4A7
BZX84C 4.7BSB	4.59	4.77					4B7
BZX84C 4.7BSC	4.71	4.91					4C7
BZX84C 5.1BS	4.85	5.35	70	5.0	5.0	1.5	5V1
BZX84C 5.1BSA	4.85	5.03					5A1
BZX84C 5.1BSB	4.97	5.18					5B1
BZX84C 5.1BSC	5.12	5.35					5C1
BZX84C 5.6BS	5.29	5.88	40	5.0	5.0	2.5	5V6
BZX84C 5.6BSA	5.29	5.52					5A6
BZX84C 5.6BSB	5.46	5.70					5B6
BZX84C 5.6BSC	5.64	5.88					5C6
BZX84C 6.2BS	5.81	6.40	30	5.0	5.0	3.0	6V2
BZX84C 6.2BSA	5.81	6.06					6A2
BZX84C 6.2BSB	5.99	6.24					6B2
BZX84C 6.2BSC	6.16	6.40					6C2
BZX84C 6.8BS	6.32	6.97	25	5.0	2.0	3.5	6V8
BZX84C 6.8BSA	6.32	6.59					6A8
BZX84C 6.8BSB	6.52	6.79					6B8
BZX84C 6.8BSC	6.70	6.97					6C8
BZX84C 7.5BS	6.88	7.64	25	5.0	0.5	4.0	7V5
BZX84C 7.5BSA	6.88	7.19					7A5
BZX84C 7.5BSB	7.11	7.41					7B5
BZX84C 7.5BSC	7.33	7.64					7C5
BZX84C 8.2BS	7.56	8.41	20	5.0	0.5	5.0	8V2
BZX84C 8.2BSA	7.56	7.90					8A2
BZX84C 8.2BSB	7.82	8.15					8B2
BZX84C 8.2BSC	8.07	8.41					8C2
BZX84C 9.1BS	8.33	9.29	20	5.0	0.5	6.0	9V1
BZX84C 9.1BSA	8.33	8.70					9A1
BZX84C 9.1BSB	8.61	8.99					9B1
BZX84C 9.1BSC	8.89	9.29					9C1
BZX84C 10BS	9.19	10.30	20	5.0	0.2	7.0	10V
BZX84C 10BSA	9.19	9.59					10A
BZX84C 10BSB	9.48	9.90					10B
BZX84C 10BSC	9.82	10.30					10C
BZX84C 11BS	10.18	11.26	20	5.0	0.2	8.0	11V
BZX84C 11BSA	10.18	10.36					11A
BZX84C 11BSB	10.50	10.95					11B
BZX84C 11BSC	10.82	11.26					11C

## ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise specified)

TYPE	V <sub>ZT</sub> @I <sub>ZT</sub> (V)		R <sub>ZT</sub> @I <sub>ZT</sub> (Ω) MAX	I <sub>ZT</sub> (mA)	I <sub>R</sub> @T <sub>A</sub> =25°C (μA) MAX	V <sub>R</sub> (V)	MARKING
	MIN	MAX					
BZX84C 12BS	11.13	12.30	25	5.0	0.2	9.0	12V
BZX84C 12BSA	11.13	11.63					12A
BZX84C 12BSB	11.50	11.92					12B
BZX84C 12BSC	11.80	12.30					12C
BZX84C 13BS	12.18	13.62	26	5.0	0.2	10	13V
BZX84C 13BSA	12.18	12.71					13A
BZX84C 13BSB	12.59	13.16					13B
BZX84C 13BSC	13.03	13.62					13C
BZX84C 15BS	13.48	15.02	30	5.0	0.2	11	15V
BZX84C 15BSA	13.48	14.09					15A
BZX84C 15BSB	13.95	14.56					15B
BZX84C 15BSC	14.42	15.02					15C
BZX84C 16BS	14.87	16.50	40	5.0	0.2	12	16V
BZX84C 16BSA	14.87	15.50					16A
BZX84C 16BSB	15.33	15.96					16B
BZX84C 16BSC	15.79	16.50					16C
BZX84C 18BS	16.34	18.30	50	5.0	0.2	13	18V
BZX84C 18BSA	16.34	17.06					18A
BZX84C 18BSB	16.90	17.67					18B
BZX84C 18BSC	17.51	18.30					18C
BZX84C 20BS	18.14	20.45	55	5.0	0.2	15	20V
BZX84C 20BSA	18.14	18.96					20A
BZX84C 20BSB	18.80	19.68					20B
BZX84C 20BSC	19.52	20.45					20B
BZX84C 22BS	20.23	22.61	55	5.0	0.2	17	22V
BZX84C 22BSA	20.23	21.08					22A
BZX84C 22BSB	20.76	21.65					22B
BZX84C 22BSC	21.22	22.09					22C
BZX84C 22BSD	21.68	22.61					22D
BZX84C 24BS	22.26	24.81	80	5.0	0.2	19	24V
BZX84C 24BSA	22.26	23.12					24A
BZX84C 24BSB	22.75	23.73					24B
BZX84C 24BSC	23.29	24.72					24C
BZX84C 24BSD	23.81	24.81					24D
BZX84C 27BS	24.26	27.64	80	5.0	0.2	21	27V
BZX84C 27BSA	24.26	25.52					27A
BZX84C 27BSB	24.97	26.26					27B
BZX84C 27BSC	25.63	26.95					27C
BZX84C 27BSD	26.29	27.64					27D

## ELECTRICAL CHARACTERISTICS (@TA=25°C unless otherwise specified)

TYPE	V <sub>ZT</sub> @I <sub>ZT</sub> (V)		R <sub>ZT</sub> @I <sub>ZT</sub> (Ω) MAX	I <sub>ZT</sub> (mA)	I <sub>R</sub> @T <sub>A</sub> =25°C (μA) MAX	V <sub>R</sub> (V)	MARKING
	MIN	MAX					
BZX84C 30BS	26.99	30.51	80	5.0	0.2	23	30V
BZX84C 30BSA	26.99	28.39					30A
BZX84C 30BSB	27.70	29.13					30B
BZX84C 30BSC	28.36	29.82					30C
BZX84C 30BSD	29.02	30.51					30D
BZX84C 33BS	29.68	33.11	80	5.0	0.2	25	33V
BZX84C 33BSA	29.68	31.22					33A
BZX84C 33BSB	30.32	31.88					33B
BZX84C 33BSC	30.90	32.50					33C
BZX84C 33BSD	31.49	33.11					33D
BZX84C 36BS	32.14	35.77	80	5.0	0.2	27	36V
BZX84C 36BSA	32.14	33.79					36A
BZX84C 36BSB	32.79	34.49					36B
BZX84C 36BSC	33.40	35.13					36C
BZX84C 36BSD	34.01	35.77					36D

NOTES: 1. Pulse Condition : 20mS < t<sub>p</sub> < 50mS, Duty Cycle < 2%.  
 2. "Fully RoHS Compliant", "100% Sn Plating (Pb-free)".

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