

**BZX84A2V4 THRU BZX84A47**

**SURFACE MOUNT  
SILICON ZENER DIODE  
350mW, 2.4 THRU 47 VOLTS  
1% TOLERANCE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BZX84A2V4 Series are surface mount silicon, tight tolerance Zener diodes. These high quality voltage regulating diodes are designed for use in industrial, commercial, entertainment and computer applications.



**SOT-23 CASE**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$P_D$   
 $T_J, T_{stg}$   
 $\theta_{JA}$

**UNITS**

mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ ),  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current $I_{ZT}$	Maximum Zener Impedance			Maximum Reverse Current		Maximum Zener Current $I_{ZM}$	Maximum Temperature Coefficient $\theta_{VZ}$	Marking Code
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$	$I_{ZM}$			
	V	V	V		$\Omega$	$\Omega$	mA	$\mu\text{A}$				
BZX84A2V4	2.376	2.4	2.424	5.0	100	600	1.0	50	1.0	104	-0.06	*
BZX84A2V7	2.673	2.7	2.727	5.0	100	600	1.0	20	1.0	92	-0.06	*
BZX84A3V0	2.970	3.0	3.030	5.0	95	600	1.0	10	1.0	83	-0.06	*
BZX84A3V3	3.267	3.3	3.333	5.0	95	600	1.0	5.0	1.0	76	-0.06	*
BZX84A3V6	3.564	3.6	3.636	5.0	90	600	1.0	5.0	1.0	69	-0.06	*
BZX84A3V9	3.861	3.9	3.939	5.0	90	600	1.0	3.0	1.0	64	-0.06	*
BZX84A4V3	4.257	4.3	4.343	5.0	90	600	1.0	3.0	1.0	58	-0.05	*
BZX84A4V7	4.653	4.7	4.747	5.0	80	500	1.0	3.0	2.0	53	-0.03	Z1A
BZX84A5V1	5.049	5.1	5.151	5.0	60	480	1.0	2.0	2.0	49	0.02	*
BZX84A5V6	5.544	5.6	5.656	5.0	40	400	1.0	1.0	2.0	45	0.03	*
BZX84A6V2	6.138	6.2	6.262	5.0	10	150	1.0	3.0	4.0	40	0.04	*
BZX84A6V8	6.732	6.8	6.868	5.0	15	80	1.0	2.0	4.0	37	0.05	*
BZX84A7V5	7.425	7.5	7.575	5.0	15	80	1.0	1.0	5.0	33	0.05	*
BZX84A8V2	8.118	8.2	8.282	5.0	15	80	1.0	0.7	5.0	30	0.06	*
BZX84A9V1	9.009	9.1	9.191	5.0	15	100	1.0	0.5	6.0	27	0.06	*
BZX84A10	9.90	10	10.10	5.0	20	150	1.0	0.2	7.0	25	0.07	*
BZX84A11	10.89	11	11.11	5.0	20	150	1.0	0.1	8.0	23	0.07	*
BZX84A12	11.88	12	12.12	5.0	25	150	1.0	0.1	8.0	21	0.07	*
BZX84A13	12.87	13	13.13	5.0	30	170	1.0	0.1	8.0	19	0.08	*
BZX84A15	14.85	15	15.15	5.0	30	200	1.0	0.05	10.5	17	0.08	*

\* Consult Factory

R0 (28-April 2011)

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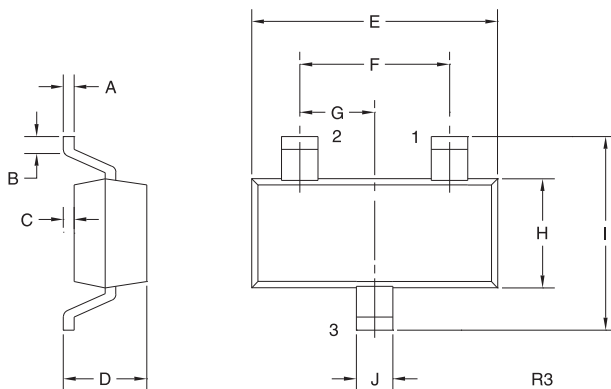


**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^{\circ}\text{C}$ ),  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

Type	Zener Voltage $V_Z @ I_{ZT}$			Test Current $I_{ZT}$	Maximum Zener Impedance			Maximum Reverse Current		Maximum Zener Current $I_{ZM}$	Maximum Temperature Coefficient $\theta_{VZ}$	Marking Code
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$					
	V	V	V		$\Omega$	$\Omega$	$\mu\text{A}$	V				
BZX84A16	15.84	16	16.16	5.0	40	200	1.0	0.05	11.2	16	0.08	*
BZX84A18	17.82	18	18.18	5.0	45	225	1.0	0.05	12.6	14	0.08	*
BZX84A20	19.80	20	20.20	5.0	55	225	1.0	0.05	14.0	12	0.08	*
BZX84A22	21.78	22	22.22	5.0	55	250	1.0	0.05	15.4	11	0.09	*
BZX84A24	23.76	24	24.24	5.0	70	250	1.0	0.05	16.8	10	0.09	*
BZX84A27	26.73	27	27.27	2.0	80	300	0.5	0.05	18.9	9	0.09	*
BZX84A30	29.70	30	30.30	2.0	80	300	0.5	0.05	21.0	8	0.09	*
BZX84A33	32.67	33	33.33	2.0	80	325	0.5	0.05	23.1	7	0.09	*
BZX84A36	35.64	36	36.36	2.0	90	350	0.5	0.05	25.2	6.9	0.09	*
BZX84A39	38.61	39	39.39	2.0	130	350	0.5	0.05	27.3	6.4	0.09	*
BZX84A43	42.57	43	43.43	2.0	150	375	0.5	0.05	30.1	5.8	0.10	*
BZX84A47	46.53	47	47.47	2.0	170	375	0.5	0.05	32.9	5.3	0.10	*

\* Consult Factory

**SOT-23 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

**LEAD CODE:**

- 1) Anode
- 2) No Connection
- 3) Cathode

R0 (28-April 2011)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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