

**BZX84C2V4  
THRU  
BZX84C47**

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



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BZX84C2V4 Series are surface mount silicon Zener diodes. These high quality voltage regulating diodes are designed for use in industrial, commercial, entertainment and computer applications.

**MARKING CODE: SEE ELECTRICAL CHARACTERISTICS TABLE**



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

Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  357

**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)

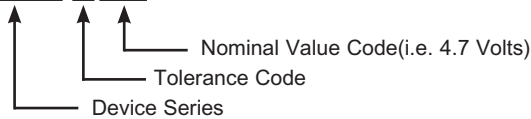
TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDENCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT $I_{ZM}$	MAXIMUM ZENER VOLTAGE TEMP. COEFF. $\theta_{VZ}$	MARKING CODE
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$	$I_{RM}$				
	V	V	V						$\Omega$			
BZX84C2V4	2.2	2.4	2.6	5.0	100	600	1.0	50	1.0	104	-0.06	W3
BZX84C2V7	2.5	2.7	2.9	5.0	100	600	1.0	20	1.0	92	-0.06	W4
BZX84C3V0	2.8	3.0	3.2	5.0	95	600	1.0	10	1.0	83	-0.06	W5
BZX84C3V3	3.1	3.3	3.5	5.0	95	600	1.0	5.0	1.0	76	-0.06	W6
BZX84C3V6	3.4	3.6	3.8	5.0	90	600	1.0	5.0	1.0	69	-0.06	W7
BZX84C3V9	3.7	3.9	4.1	5.0	90	600	1.0	3.0	1.0	64	-0.06	W8
BZX84C4V3	4.0	4.3	4.6	5.0	90	600	1.0	3.0	1.0	58	-0.05	W9
BZX84C4V7	4.4	4.7	5.0	5.0	80	500	1.0	3.0	2.0	53	-0.03	Z1
BZX84C5V1	4.8	5.1	5.4	5.0	60	480	1.0	2.0	2.0	49	0.02	Z2
BZX84C5V6	5.2	5.6	6.0	5.0	40	400	1.0	1.0	2.0	45	0.03	Z3
BZX84C6V2	5.8	6.2	6.6	5.0	10	150	1.0	3.0	4.0	40	0.04	Z4
BZX84C6V8	6.4	6.8	7.2	5.0	15	80	1.0	2.0	4.0	37	0.05	Z5
BZX84C7V5	7.0	7.5	7.9	5.0	15	80	1.0	1.0	5.0	33	0.05	Z6
BZX84C8V2	7.7	8.2	8.7	5.0	15	80	1.0	0.7	5.0	30	0.06	Z7
BZX84C9V1	8.5	9.1	9.6	5.0	15	100	1.0	0.5	6.0	27	0.06	Z8
BZX84C10	9.4	10	10.6	5.0	20	150	1.0	0.2	7.0	25	0.07	Z9

**Tolerance Code    Tolerance**

A     $\pm 1\%$   
B     $\pm 2\%$

**Part Number Identification**

**BZX84 C 4V7**



R7 (20-November 2009)

**BZX84C2V4  
THRU  
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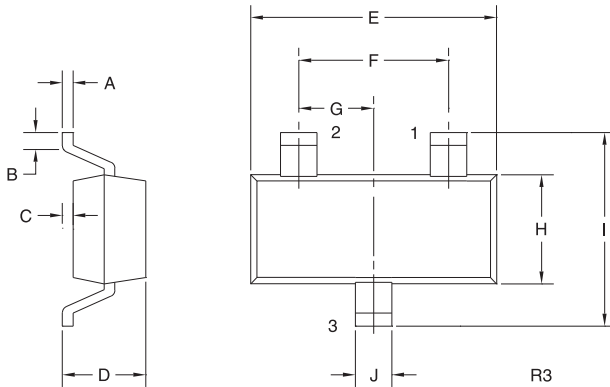
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ ),  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDENCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT $I_{ZM}$	MAXIMUM ZENER VOLTAGE TEMP. COEFF. $\frac{\partial V_Z}{\partial T}$	MARKING CODE
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$					
	V	V	V	mA	$\Omega$	$\Omega$	$\mu\text{A}$	V	mA	% / $^\circ\text{C}$		
BZX84C11	10.4	11	11.6	5.0	20	150	1.0	0.1	8.0	23	0.07	Y1
BZX84C12	11.4	12	12.7	5.0	25	150	1.0	0.1	8.0	21	0.07	Y2
BZX84C13	12.4	13	14.1	5.0	30	170	1.0	0.1	8.0	19	0.08	Y3
BZX84C15	13.8	15	15.6	5.0	30	200	1.0	0.05	10.5	17	0.08	Y4
BZX84C16	15.3	16	17.1	5.0	40	200	1.0	0.05	11.2	16	0.08	Y5
BZX84C18	16.8	18	19.1	5.0	45	225	1.0	0.05	12.6	14	0.08	Y6
BZX84C20	18.8	20	21.2	5.0	55	225	1.0	0.05	14.0	12	0.08	Y7
BZX84C22	20.8	22	23.3	5.0	55	250	1.0	0.05	15.4	11	0.09	Y8
BZX84C24	22.8	24	25.6	5.0	70	250	1.0	0.05	16.8	10	0.09	Y9
BZX84C27	25.1	27	28.9	2.0	80	300	0.5	0.05	18.9	9	0.09	Y10
BZX84C30	28.0	30	32.0	2.0	80	300	0.5	0.05	21.0	8	0.09	Y11
BZX84C33	31.0	33	35.0	2.0	80	325	0.5	0.05	23.1	7	0.09	Y12
BZX84C36	34.0	36	38.0	2.0	90	350	0.5	0.05	25.2	6.9	0.09	Y13
BZX84C39	37.0	39	41.0	2.0	130	350	0.5	0.05	27.3	6.4	0.09	Y14
BZX84C43	40.0	43	46.0	2.0	150	375	0.5	0.05	30.1	5.8	0.10	Y15
BZX84C47	44.0	47	50.0	2.0	170	375	0.5	0.05	32.9	5.3	0.10	Y16

**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

R7 (20-November 2009)