

Technical Data Data Sheet N0199, Rev. B

RoHS

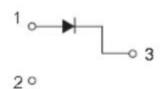
BZX84C2V4-BZX84C43 ZENER DIODE



Features

- **Planar Die Construction**
- 350mW Power Dissipation
- 2.4V- 43V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- **Designed for Surface Mount Application**
- Plastic Material UL Recognition Flammability **Classification 94V-O**
- "-A" is an AEC-Q101 qualified device
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOT-23, Molded Plastic
- Terminals: Plated leads Solderable per MIL-STD-750, Method 2026
- **Mounting Position: Any**
- Weight: 0.008g

Maximum Ratings@T_A=25°C unless otherwise specified

Parameter	Symbol	Value	Units
Maximum Power Dissipation(Note 1) at 25°C	PD	350	mW
Typical Thermal Resistance, Junction to Ambient(Note 2)	R _{θJA}	417	°C/W
Operating Junction and Storage Temperature Range	TJ,Tstg	-55 to 150	°C

Notes: 1. Mounted on 50mm×16mm FR-4 board.

2. Mounted on minimum pad layout (1cm×1cm FR-4 board).

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Electrical Characteristics @T_A=25°C unless otherwise specified

Type Number	Code	ZenerVoltage Range (Note 2))	Maximum Zener Impedance (Note 3)		Maximum Reverse Current		Temperature Coefficent of Zener voltage @ I _{zt} =5mA			
			Vz@lzt		Izt	Z _{zt} @l _{zt}	Z _{zk} @l _{zk}	I _{zk}	۱ _R	VR	m)	//°C
3		Nom(V)	Min(V)	Ma×(∀)	(mA)	<u>(</u> ۲)	2)	(mA)	(μΑ)	(V)	Min	Max
BZX84C2V4	Z11	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0
BZX84C3V3	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0
BZX84C3V6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0
BZX84C3V9	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	O
BZX84C4V3	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0
BZX84C4V7	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2
BZX84C5V1	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2
BZX84C5V6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5
BZX84C6V2	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7
BZX84C6V8	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5
BZX84C7V5	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3
BZX84C8V2	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX84C10	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0
BZX84C11	Y1•	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12	Y2•	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0
BZX84C15	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0
BZX84C16	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18	¥6•	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0
BZX84C20	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0
BZX84C24	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3
BZX84C30	Y11•	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4
BZX84C36	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4
BZX84C39	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2
BZX84C43	Y15	43	40.0	46.0	2	100	700	1	0.1	32	10	12

Notes: 1. Valid provided that device terminals are kept at ambient temperature.

2. Tested with pulses, period=5ms, pulse width =300µs.

3. f = 1kHZ.

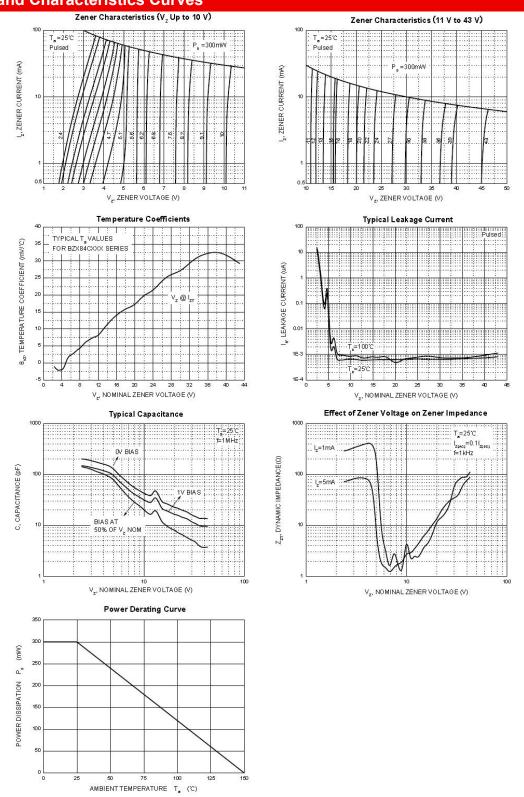
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Ratings and Characteristics Curves



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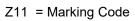
Ordering Information

Device	Package	Shipping
BZX84C2V4- BZX84C43	SOT-23	3000pcs / reel

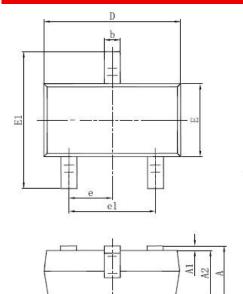
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram





Mechanical Dimensions SOT-23

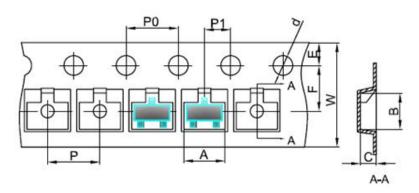


í. F	-	0. 25	
L1 L1	U F	7	
-] 	F	5	٦

	Millim	neters	Inches		
SYMBOL	MIN.	MAX.	MIN.	MAX.	
А	0.890	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.076	0.170	0.003	0.007	
D	2.650	3.050	0.104	0.120	
E	1.190	1.400	0.047	0.055	
E1	2.100	2.550	0.083	0.100	
е	0.950	TYP.	0.037 TYP.		
e1	1.780	2.050	0.070	0.081	
L	0.550	REF.	0.022 REF.		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

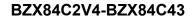
Note: If date code is before 2016 year, please contact with factory about marking.

Carrier Tape Specification SOT-23



SYMBOL	Millimeters			
STMBOL	Min.	Max.		
Α	3.05	3.25		
В	2.67	2.87		
C	1.12	1.32		
d	1.40	1.60		
E	1.65	1.85		
F	3.40	3.60		
Р	3.90	4.10		
P0	3.90	4.10		
P1	1.90	2.10		
W	7.90	8.30		

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