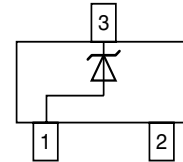
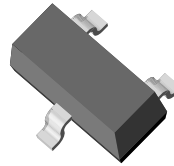


Small Signal Zener Diodes

Features

- These diodes are also available in other case styles and other configurations including: the SOD-123 case with type designation BZT52 series, the dual zener diode common anode configuration in the SOT-23 case with type designation AZ23 series and the dual zener diode common cathode configuration in the SOT-23 case with type designation DZ23 series.
- The Zener voltages are graded according to the international E 24 standard. Standard Zener voltage tolerance is $\pm 5\%$. Replace "C" with "B" for $\pm 2\%$ tolerance.
- Silicon Planar Power Zener Diodes
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



18078

Mechanical Data

Case: SOT-23 Plastic case

Weight: approx. 8.8 mg

Packaging Codes/Options:

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation		P_{tot}	300 ¹⁾	mW

¹⁾ Device on fiberglass substrate, see layout.

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

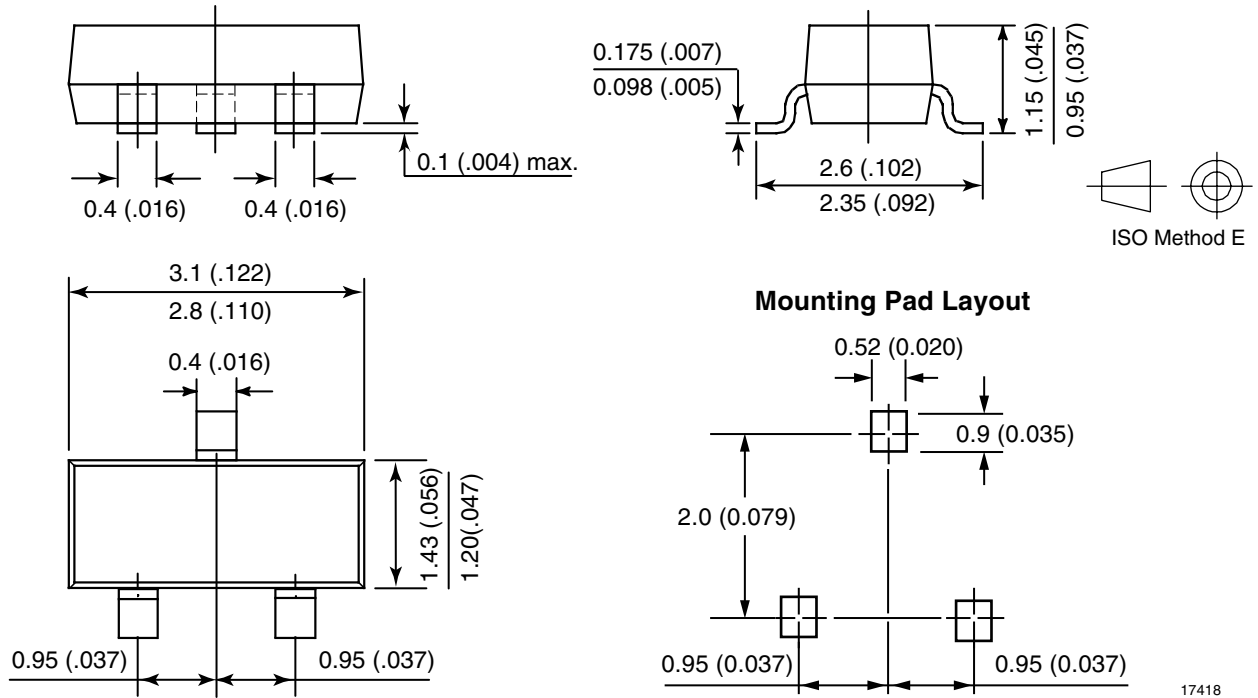
Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	420 ¹⁾	$^{\circ}\text{C}/\text{W}$
Junction temperature		T_j	150	$^{\circ}\text{C}$
Storage temperature range		T_s	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Device on fiberglass substrate, see layout.

Electrical Characteristics

Partnumber	Marking Code	Zener Voltage Range		Dynamic Resistance		Test Current	Temp. Coefficient of Zener Voltage		Test Current	Reverse Leakage Current			
		$V_Z @ I_{ZT1}$		$r_{zj} @ I_{ZT1}$	$r_{zj} @ I_{ZT2}$		I_{ZT1}	$\alpha_{VZ} @ I_{ZT1}$		I_{ZT2}	I_R	@ V_R	
		V		Ω			mA	$10^{-4}/^{\circ}C$		mA	μA	V	
		min	max				min	max					
BZX84C2V4-V	Z11	2.2	2.6	70 (≤ 100)	275	5	-9.0	-4.0	1	50	1		
BZX84C2V7-V	Z12	2.5	2.9	75 (≤ 100)	300 (≤ 600)	5	-9.0	-4.0	1	20	1		
BZX84C3V0-V	Z13	2.8	3.2	80 (≤ 95)	325 (≤ 600)	5	-9.0	-3.0	1	10	1		
BZX84C3V3-V	Z14	3.1	3.5	85 (≤ 95)	350 (≤ 600)	5	-8.0	-3.0	1	5	1		
BZX84C3V6-V	Z15	3.4	3.8	85 (≤ 90)	375 (≤ 600)	5	-8.0	-3.0	1	5	1		
BZX84C3V9-V	Z16	3.7	4.1	85 (≤ 90)	400 (≤ 600)	5	-7.0	-3.0	1	3	1		
BZX84C4V3-V	Z17	4	4.6	80 (≤ 90)	410 (≤ 600)	5	-6.0	-1.0	1	3	1		
BZX84C4V7-V	Z1	4.4	5	50 (≤ 80)	425 (≤ 500)	5	-5.0	+2.0	1	3	2		
BZX84C5V1-V	Z2	4.8	5.4	40 (≤ 60)	400 (≤ 480)	5	-3.0	+4.0	1	2	2		
BZX84C5V6-V	Z3	5.2	6	15 (≤ 40)	80 (≤ 400)	5	-2.0	+6.0	1	1	2		
BZX84C6V2-V	Z4	5.8	6.6	6.0 (≤ 10)	40 (≤ 150)	5	-1.0	+7.0	1	3	4		
BZX84C6V8-V	Z5	6.4	7.2	6.0 (≤ 15)	30 (≤ 80)	5	+2.0	+7.0	1	2	4		
BZX84C7V5-V	Z6	7	7.9	6.0 (≤ 15)	30 (≤ 80)	5	+3.0	+7.0	1	1	5		
BZX84C8V2-V	Z7	7.7	8.7	6.0 (≤ 15)	40 (≤ 80)	5	+4.0	+7.0	1	0.7	5		
BZX84C9V1-V	Z8	8.5	9.6	6.0 (≤ 15)	40 (≤ 100)	5	+5.0	+8.0	1	0.5	6		
BZX84C10-V	Z9	9.4	10.6	8.0 (≤ 20)	50 (≤ 150)	5	+5.0	+8.0	1	0.2	7		
BZX84C11-V	Y1	10.4	11.6	10 (≤ 20)	50 (≤ 150)	5	+5.0	+9.0	1	0.1	8		
BZX84C12-V	Y2	11.4	12.7	10 (≤ 25)	50 (≤ 150)	5	+6.0	+9.0	1	0.1	8		
BZX84C13-V	Y3	12.4	14.1	10 (≤ 30)	50 (≤ 170)	5	+7.0	+9.0	1	0.1	8		
BZX84C15-V	Y4	13.8	15.6	10 (≤ 30)	50 (≤ 200)	5	+7.0	+9.0	1	0.05	0.7 V_{Znom} .		
BZX84C16-V	Y5	15.3	17.1	10 (≤ 40)	50 (≤ 200)	5	+8.0	+9.5	1	0.05	0.7 V_{Znom} .		
BZX84C18-V	Y6	16.8	19.1	10 (≤ 45)	50 (≤ 225)	5	+8.0	+9.5	1	0.05	0.7 V_{Znom} .		
BZX84C20-V	Y7	18.8	21.2	15 (≤ 55)	60 (≤ 225)	5	+8.0	+10	1	0.05	0.7 V_{Znom} .		
BZX84C22-V	Y8	20.8	23.3	20 (≤ 55)	60 (≤ 250)	5	+8.0	+10	1	0.05	0.7 V_{Znom} .		
BZX84C24-V	Y9	22.8	25.6	25 (≤ 70)	60 (≤ 250)	5	+8.0	+10	1	0.05	0.7 V_{Znom} .		
BZX84C27-V	Y10	25.1	28.9	25 (≤ 80)	65 (≤ 300)	2	+8.0	+10	0.5	0.05	0.7 V_{Znom} .		
BZX84C30-V	Y11	28	32	30 (≤ 80)	70 (≤ 300)	2	+8.0	+10	0.5	0.05	0.7 V_{Znom} .		
BZX84C33-V	Y12	31	35	35 (≤ 80)	75 (≤ 325)	2	+8.0	+10	0.5	0.05	0.7 V_{Znom} .		
BZX84C36-V	Y13	34	38	35 (≤ 90)	80 (≤ 350)	2	+8.0	+10	0.5	0.05	0.7 V_{Znom} .		
BZX84C39-V	Y14	37	41	40 (≤ 130)	80 (≤ 350)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C43-V	Y15	40	46	45 (≤ 150)	85 (≤ 375)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C47-V	Y16	44	50	50 (≤ 170)	85 (≤ 375)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C51-V	Y17	48	54	60 (≤ 180)	85 (≤ 400)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C56-V	Y18	52	60	70 (≤ 200)	100 (≤ 425)	2	+9.0	+11	0.5	0.05	0.7 V_{Znom} .		
BZX84C62-V	Y19	58	66	80 (≤ 215)	100 (≤ 450)	2	+9.0	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C68-V	Y20	64	72	90 (≤ 240)	150 (≤ 475)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		
BZX84C75-V	Y21	70	79	95 (≤ 255)	170 (≤ 500)	2	+10	+12	0.5	0.05	0.7 V_{Znom} .		

Package Dimensions in mm (Inches)



17418