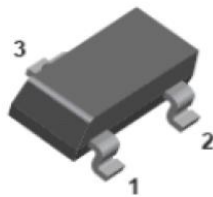
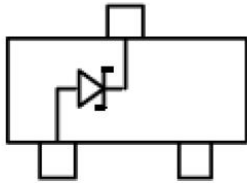


Zener Diodes



SOT-323

Features

- Moisture sensitivity level 1
- Zener voltage 1.8V~39V

Application

- Linear voltage regulator
- DC regulator
- Small-signal surge protection

Mechanical data

- **Package:** SOT-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Forward voltage @ $I_F=10\text{mA}$	V_F	V	0.95
Power dissipation	P_D	mW	200
Maximum regulator current	I_{ZM}	mA	P_D / V_Z
Junction temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150



BZX8850-C1V8 THRU BZX8850-C39

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type Number	Device Marking	V _Z @ I _Z (V)				I _R (μA)@V _R	
		Min	Typ	Max	I _{zt} (μA)	I _R (μA)	V _R (V)
BZX8850-C1V8	6R	1.71	1.8	1.89	50	7.5	1
BZX8850-C2V0	6S	1.90	2.0	2.10	50	5	1
BZX8850-C2V2	6T	2.09	2.2	2.31	50	4	1
BZX8850-C2V4	6U	2.28	2.4	2.52	50	2	1
BZX8850-C2V7	6V	2.565	2.7	2.835	50	1	1
BZX8850-C3V0	6W	2.85	3.0	3.15	50	0.8	1
BZX8850-C3V3	6X	3.135	3.3	3.465	50	7.5	1.5
BZX8850-C3V6	6Y	3.42	3.6	3.78	50	7.5	2.0
BZX8850-C3V9	6Z	3.705	3.9	4.095	50	5.0	2.0
BZX8850-C4V3	7A	4.085	4.3	4.515	50	4.0	2.0
BZX8850-C4V7	7B	4.465	4.7	4.935	50	10	3.0
BZX8850-C5V1	7C	4.845	5.1	5.355	50	10	3.0
BZX8850-C5V6	7D	5.32	5.6	5.88	50	10	4.0
BZX8850-C6V2	7E	5.89	6.2	6.51	50	10	5.0
BZX8850-C6V8	7F	6.46	6.8	7.14	50	10	5.1
BZX8850-C7V5	7G	7.125	7.5	7.875	50	10	5.7
BZX8850-C8V2	7H	7.79	8.2	8.61	50	1	6.2
BZX8850-C8V7	7L	8.265	8.7	9.135	50	1	6.6
BZX8850-C9V1	7J	8.645	9.1	9.555	50	1	6.9
BZX8850-C10	7K	9.50	10	10.5	50	1	7.6
BZX8850-C11	7M	10.45	11	11.55	50	0.05	8.4
BZX8850-C12	7N	11.40	12	12.6	50	0.05	9.1
BZX8850-C13	7P	12.35	13	13.65	50	0.05	9.8
BZX8850-C14	7Q	13.30	14	14.7	50	0.05	10.6
BZX8850-C15	7R	14.25	15	15.75	50	0.05	11.4



BZX8850-C1V8 THRU BZX8850-C39

BZX8850-C16	7S	15.20	16	16.8	50	0.05	12.1
BZX8850-C17	7T	16.15	17	17.85	50	0.05	12.9
BZX8850-C18	7U	17.10	18	18.9	50	0.05	13.6
BZX8850-C19	7V	18.05	19	19.95	50	0.05	14.4
BZX8850-C20	7W	19.00	20	21	50	0.01	15.2
BZX8850-C22	7X	20.9	22	23.1	50	0.01	16.7
BZX8850-C24	7Y	22.8	24	25.2	50	0.01	18.2
BZX8850-C25	7Z	23.75	25	26.25	50	0.01	19.0
BZX8850-C27	8A	25.65	27	28.35	50	0.01	20.4
BZX8850-C28	8B	26.6	28	29.4	50	0.01	21.2
BZX8850-C30	8C	28.5	30	31.5	50	0.01	22.8
BZX8850-C33	8D	31.35	33	34.65	50	0.01	25
BZX8850-C36	8E	34.2	36	37.8	50	0.01	27.3
BZX8850-C39	8F	37.05	39	40.95	50	0.01	29.6

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}^{(1)}$	$^{\circ}\text{C/W}$	625
Thermal resistance, junction-to-case	$R_{\theta J-C}^{(1)}$	$^{\circ}\text{C/W}$	500

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint

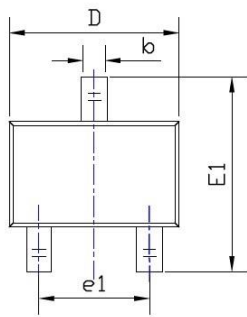


BZX8850-C1V8 THRU BZX8850-C39

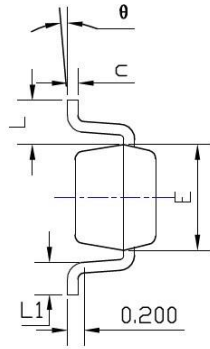
■ Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BZX8850-C1V8 THRU BZX8850-C39	F2	Approximate 0.005	3000	30000	120000	7" reel

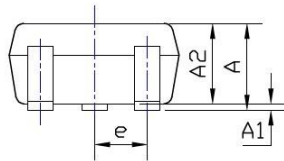
■ Outline Dimensions



TOP VIEW



SIDE VIEW



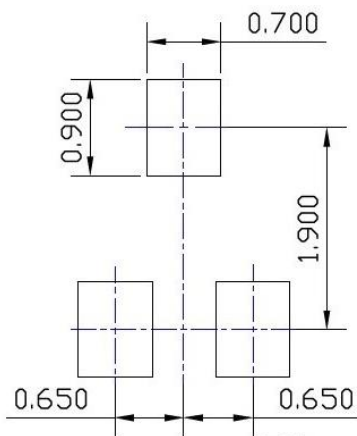
SIDE VIEW

SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026 TYP		0.650 TYP	
e1	0.047	0.055	1.200	1.400
L	0.021 REF		0.525 REF	
L1	0.010	0.018	0.260	0.460
theta	0°	8°	0°	8°

NOTE:

- 1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
- 2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
- 3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

■ Suggested Pad Layout



UNIT: mm



BZX8850-C1V8 THRU BZX8850-C39

Disclaimer

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