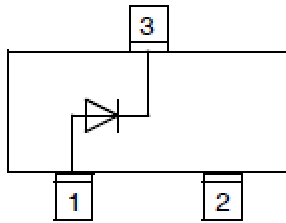




Small Signal Zener Diodes

**SOT-323**

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Zener Voltage 3.6V~36V
- V_Z -tolerance $\pm 2\%$ approximately
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- General regulation functions

Mechanical Data

- **Case:** 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
Power Dissipation	P_D	mW	200
Storage Temperature Range	T_{stg}	$^\circ\text{C}$	-55~+150
Junction Temperature	T_J	$^\circ\text{C}$	-55~+150
Maximum Regulator Current	I_{ZM}	mA	P_D / V_Z
Maximum Forward Voltage ($I_F=10\text{mA}_{DC}$)	V_F	V	0.9
Thermal Resistance Junction to Ambient Air*	$R_{\theta JA}$	$^\circ\text{C} / \text{W}$	625

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZX84B3V6WHQ THRU BZX84B36WHQ	F2	Approximate 0.006	3000	30000	120000	7" reel



BZX84B3V6WHQ THRU BZX84B36WHQ

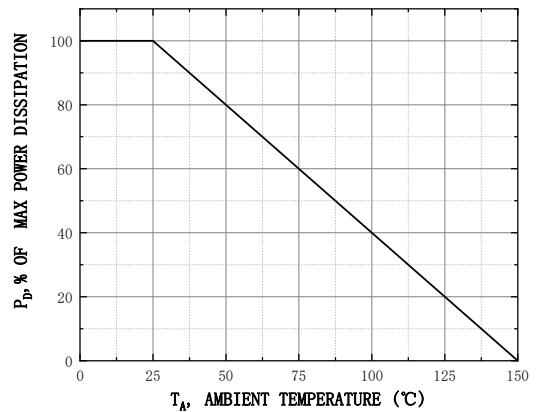
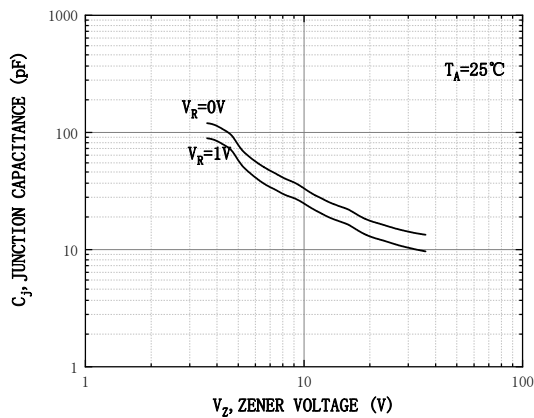
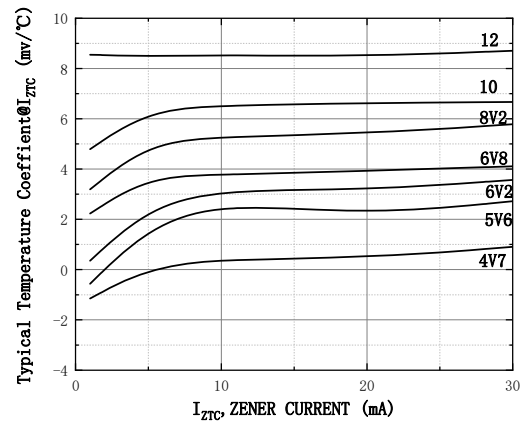
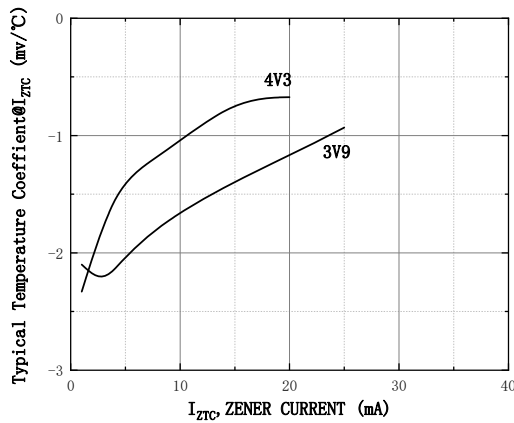
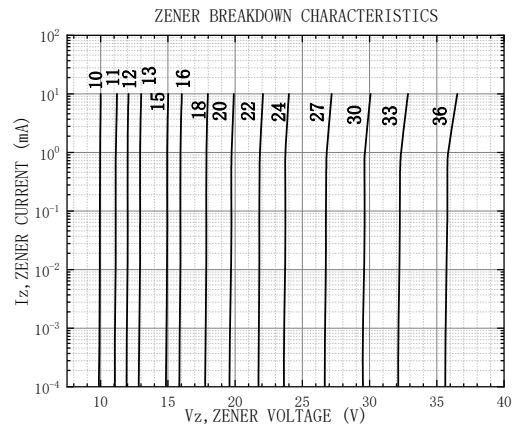
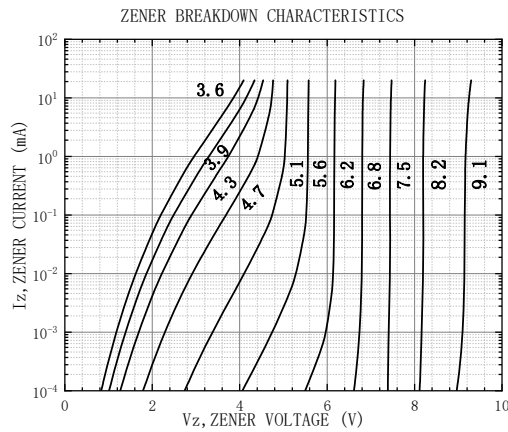
■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Type Number	Device Marking	V _z at I _{z1} (V)			I _{z1} mA	Z _{z1} (Ω)		Z _{zk} (Ω)		I _R (μA)@V _R		Typical Temperature Coefficient@ I _{ZTC} mV/℃		Test Current I _{ZTC}
		min.	typ.	max.		I _{z1} (mA)	max.	I _{zk} (mA)	max.	uA	V _R (V)	Min	Max	mA
BZX84B3V6WHQ	2W4	3.53	3.6	3.67	5	5	90	1.0	600	5	1.0	-3.5	0	5
BZX84B3V9WHQ	2W5	3.82	3.9	3.98	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZX84B4V3WHQ	2W6	4.21	4.3	4.39	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZX84B4V7WHQ	2W7	4.61	4.7	4.79	5	5	80	1.0	500	3	2.0	-3.5	0.2	5
BZX84B5V1WHQ	2W8	5.0	5.1	5.2	5	5	60	1.0	480	2	2.0	-2.7	1.2	5
BZX84B5V6WHQ	2W9	5.49	5.6	5.71	5	5	40	1.0	400	1	2.0	-2	2.5	5
BZX84B6V2WHQ	2WA	6.08	6.2	6.32	5	5	10	1.0	150	3	4.0	0.4	3.7	5
BZX84B6V8WHQ	2WB	6.66	6.8	6.94	5	5	15	1.0	80	2	4.0	1.2	4.5	5
BZX84B7V5WHQ	2WC	7.35	7.5	7.65	5	5	15	1.0	80	1	5.0	2.5	5.3	5
BZX84B8V2WHQ	2WD	8.04	8.2	8.36	5	5	15	1.0	80	0.7	5.0	3.2	6.2	5
BZX84B9V1WHQ	2WE	8.92	9.1	9.28	5	5	15	1.0	100	0.5	6.0	3.8	7.0	5
BZX84B10WHQ	WG	9.8	10	10.2	5	5	20	1.0	150	0.2	7.0	4.5	8.0	5
BZX84B11WHQ	2WG	10.78	11	11.22	5	5	20	1.0	150	0.1	8.0	5.4	9.0	5
BZX84B12WHQ	WI	11.76	12	12.24	5	5	25	1.0	150	0.1	8.0	6.0	10.0	5
BZX84B13WHQ	2WI	12.74	13	13.3	5	5	30	1.0	170	0.1	8.0	7.0	11.0	5
BZX84B15WHQ	WL	14.7	15	15.3	5	5	30	1.0	200	0.1	10.5	9.2	13.0	5
BZX84B16WHQ	WM	15.68	16	16.3	5	5	40	1.0	200	0.1	11.2	10.4	14.0	5
BZX84B18WHQ	WN	17.6	18	18.4	5	5	45	1.0	225	0.1	12.6	12.4	16.0	5
BZX84B20WHQ	2WM	19.6	20	20.4	5	5	55	1.0	225	0.1	14.0	14.4	18.0	5
BZX84B22WHQ	2WN	21.56	22	22.44	5	5	55	1.0	250	0.1	15.4	16.4	20.0	5
BZX84B24WHQ	WR	23.52	24	24.5	5	5	70	1.0	250	0.1	16.8	18.4	22.0	5
BZX84B27WHQ	2WP	26.46	27	27.54	2	2	80	0.5	300	0.1	18.9	21.4	25.3	2
BZX84B30WHQ	2WQ	29.4	30	30.6	2	2	80	0.5	300	0.1	21.0	24.4	29.4	2
BZX84B33WHQ	2WR	32.34	33	33.7	2	2	80	0.5	325	0.1	23.1	27.4	33.4	2
BZX84B36WHQ	2WS	35.28	36	36.72	2	2	90	0.5	350	0.1	25.2	30.4	37.4	2



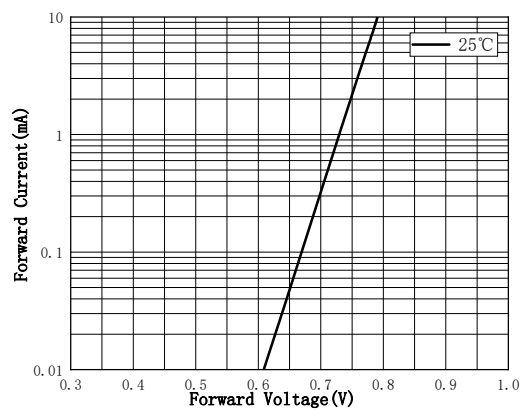
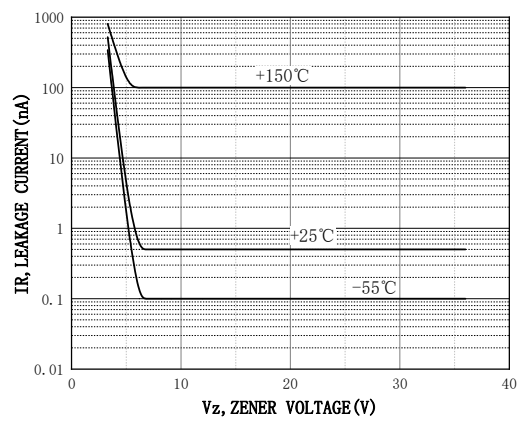
BZX84B3V6WHQ THRU BZX84B36WHQ

■ Characteristics (Typical)





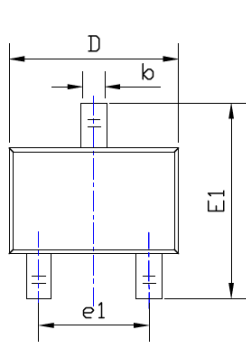
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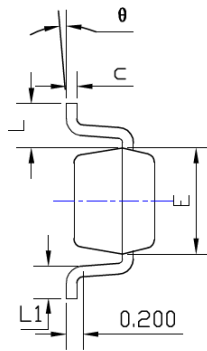


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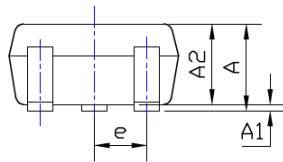
■ Outline Dimensions



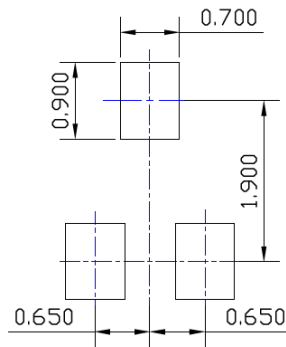
TOP VIEW



SIDE VIEW



SIDE VIEW



UNIT: mm

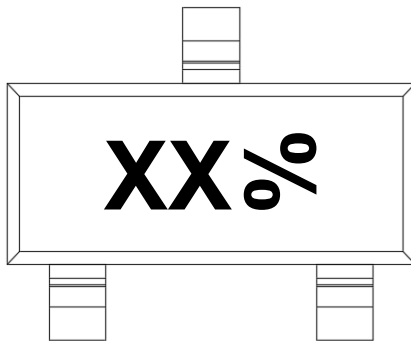
SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS			
	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.

■ Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. XX is Marking Code
4. % is a date code, rotated 90° counterclockwise

*Date Code vary depending upon production date



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