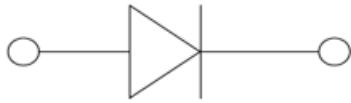


Small Signal Zener Diodes



SOD123

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:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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

PARAMETER	SYMBOL	UNIT	VALUE
Power Dissipation	P_D	mW	500
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*	$R_{\theta JA}$	$^\circ\text{C} / \text{W}$	340

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZT52B3V6HQ THRU BZT52B36HQ	F2	Approximate 0.01	3000	30000	120000	7" reel



BZT52B3V6HQ THRU BZT52B36HQ

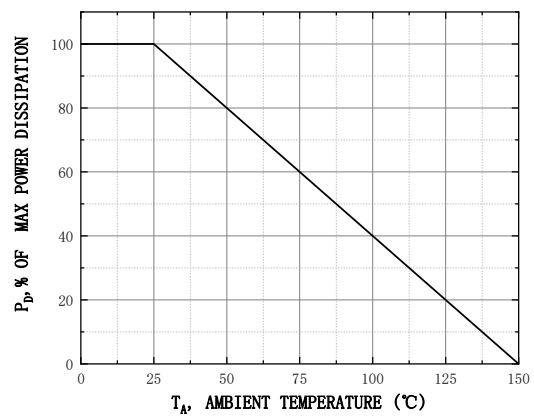
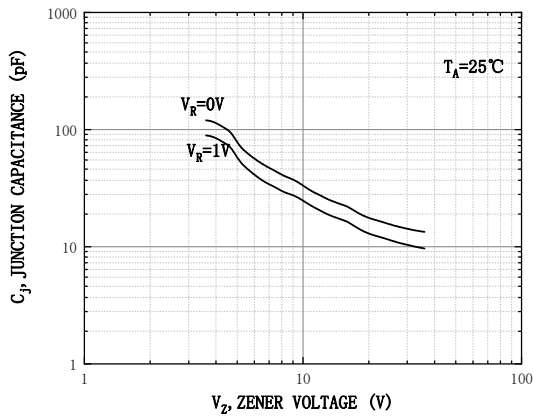
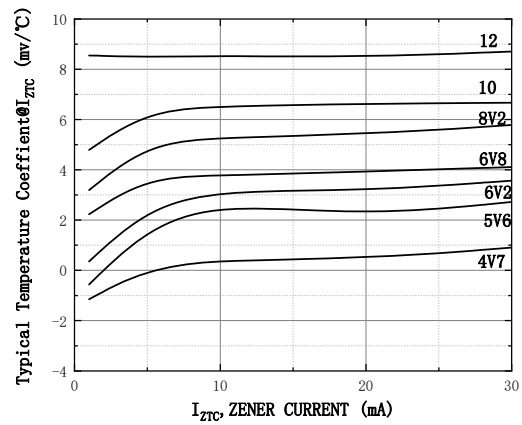
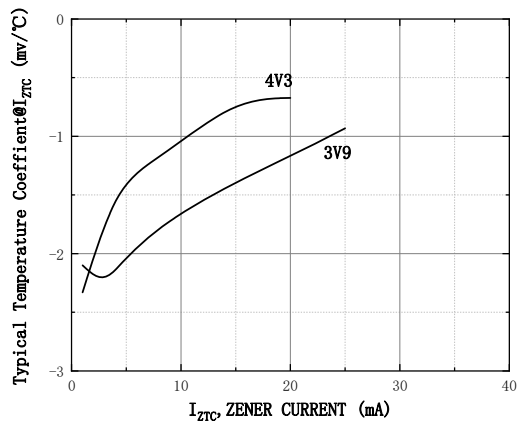
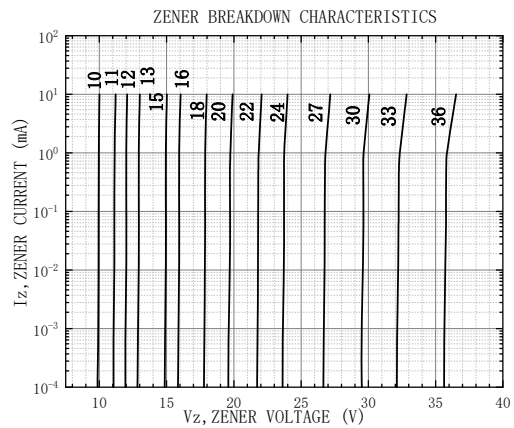
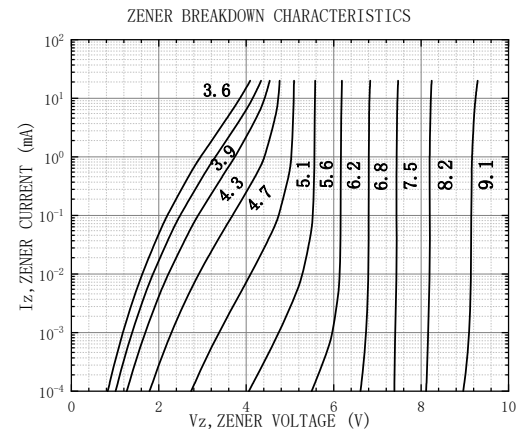
■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

Type Number	Device Marking	V _z at I _{zt} (V)			I _{zt} mA	Z _{zt} (Ω)		Z _{zk} (Ω)		I _R (μA)@V _R		Typical Temperature Coefficient@ I _{ZTC} mV/℃		Test Current I _{ZTC} mA
		min.	typ.	max.		I _{zt} (mA)	max.	I _{zk} (mA)	max.	uA	V _R (V)	Min	Max	
BZT52B3V6HQ	2W4	3.53	3.6	3.67	5	5	90	1.0	600	5	1.0	-3.5	0	5
BZT52B3V9HQ	2W5	3.82	3.9	3.98	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZT52B4V3HQ	2W6	4.21	4.3	4.39	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZT52B4V7HQ	2W7	4.61	4.7	4.79	5	5	80	1.0	500	3	2.0	-3.5	0.2	5
BZT52B5V1HQ	2W8	5.0	5.1	5.2	5	5	60	1.0	480	2	2.0	-2.7	1.2	5
BZT52B5V6HQ	2W9	5.49	5.6	5.71	5	5	40	1.0	400	1	2.0	-2	2.5	5
BZT52B6V2HQ	2WA	6.08	6.2	6.32	5	5	10	1.0	150	3	4.0	0.4	3.7	5
BZT52B6V8HQ	2WB	6.66	6.8	6.94	5	5	15	1.0	80	2	4.0	1.2	4.5	5
BZT52B7V5HQ	2WC	7.35	7.5	7.65	5	5	15	1.0	80	1	5.0	2.5	5.3	5
BZT52B8V2HQ	2WD	8.04	8.2	8.36	5	5	15	1.0	80	0.7	5.0	3.2	6.2	5
BZT52B9V1HQ	2WE	8.92	9.1	9.28	5	5	15	1.0	100	0.5	6.0	3.8	7.0	5
BZT52B10HQ	2WF	9.8	10	10.2	5	5	20	1.0	150	0.2	7.0	4.5	8.0	5
BZT52B11HQ	2WG	10.78	11	11.22	5	5	20	1.0	150	0.1	8.0	5.4	9.0	5
BZT52B12HQ	2WH	11.76	12	12.24	5	5	25	1.0	150	0.1	8.0	6.0	10.0	5
BZT52B13HQ	2WI	12.74	13	13.3	5	5	30	1.0	170	0.1	8.0	7.0	11.0	5
BZT52B15HQ	2WJ	14.7	15	15.3	5	5	30	1.0	200	0.1	10.5	9.2	13.0	5
BZT52B16HQ	2WK	15.68	16	16.3	5	5	40	1.0	200	0.1	11.2	10.4	14.0	5
BZT52B18HQ	2WL	17.6	18	18.4	5	5	45	1.0	225	0.1	12.6	12.4	16.0	5
BZT52B20HQ	2WM	19.6	20	20.4	5	5	55	1.0	225	0.1	14.0	14.4	18.0	5
BZT52B22HQ	2WN	21.56	22	22.44	5	5	55	1.0	250	0.1	15.4	16.4	20.0	5
BZT52B24HQ	2WO	23.52	24	24.5	5	5	70	1.0	250	0.1	16.8	18.4	22.0	5
BZT52B27HQ	2WP	26.46	27	27.54	2	2	80	0.5	300	0.1	18.9	21.4	25.3	2
BZT52B30HQ	2WQ	29.4	30	30.6	2	2	80	0.5	300	0.1	21.0	24.4	29.4	2
BZT52B33HQ	2WR	32.34	33	33.7	2	2	80	0.5	325	0.1	23.1	27.4	33.4	2
BZT52B36HQ	2WS	35.28	36	36.72	2	2	90	0.5	350	0.1	25.2	30.4	37.4	2



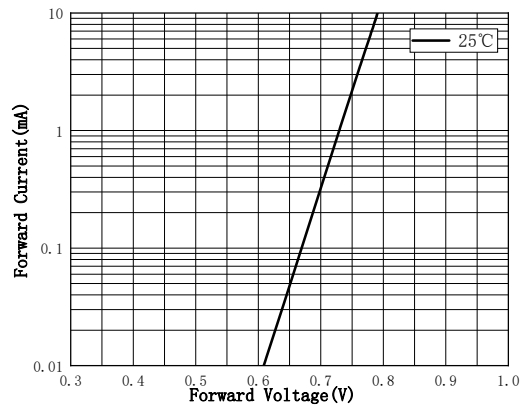
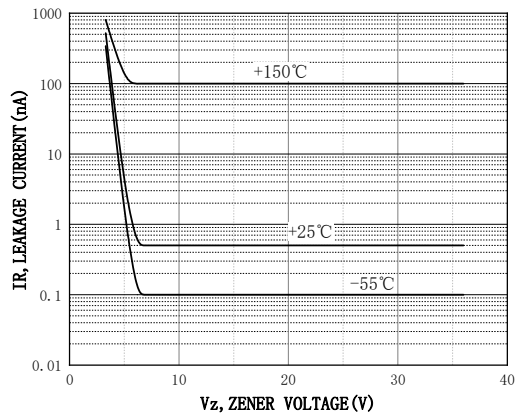
BZT52B3V6HQ THRU BZT52B36HQ

■ Characteristics (Typical)





BZT52B3V6HQ THRU BZT52B36HQ

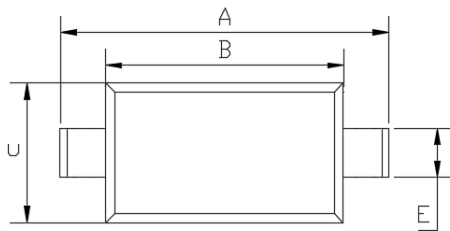




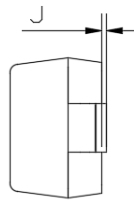
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■ Outline Dimensions

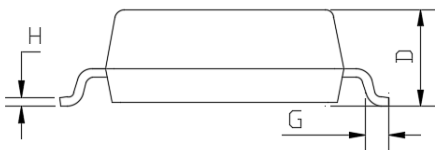
SOD-123



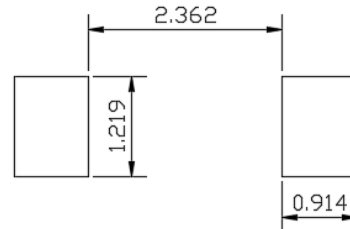
TOP VIEW



SIDE VIEW



SIDE VIEW



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

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.

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MM	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black
4. XXX is Marking code ; % is a date code, rotated 90° counterclockwise

*Date Code vary depending upon production date



BZT52B3V6HQ THRU BZT52B36HQ

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