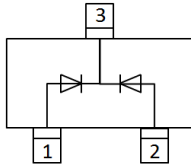




Small Signal Zener Diodes



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-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102



SOT-23

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

Characteristic	Symbol	Value	Units
Power Dissipation	$P_{D[1]}$	300	mW
Maximum Forward Voltage ($I_F=10\text{mA}$)	V_F	0.9	V
Maximum Regulator Current	$I_{ZM[1]}$	P_D / V_Z	mA
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$
Operation Temperature	T_J	-55~+150	$^\circ\text{C}$

[1] Single diode loaded

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DZ23B3V6HQ THRU DZ23B36HQ	F2	Approximate 0.01	3000	30000	120000	7" reel



DZ23B3V6HQ THRU DZ23B36HQ

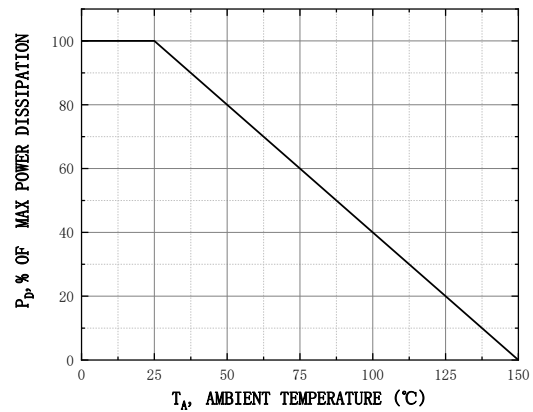
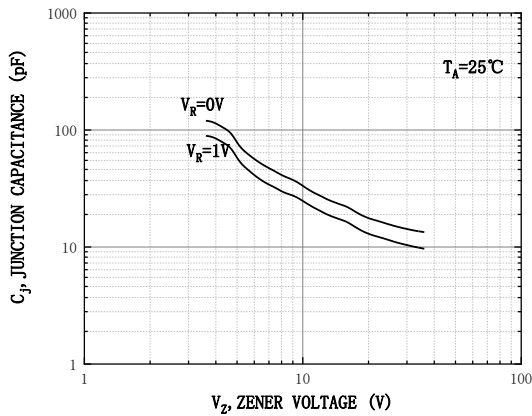
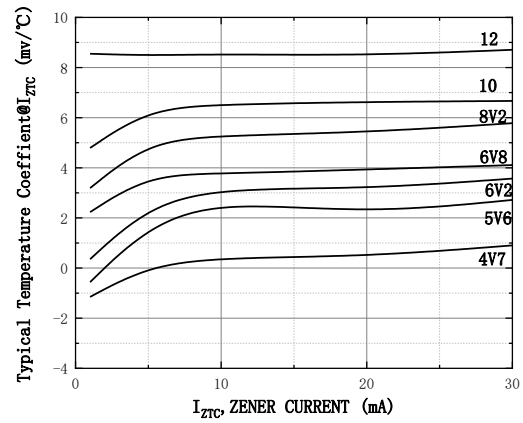
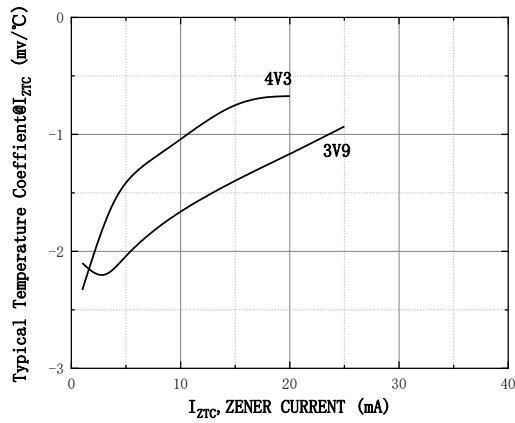
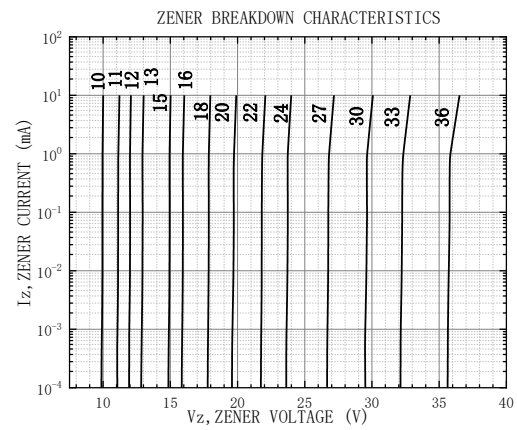
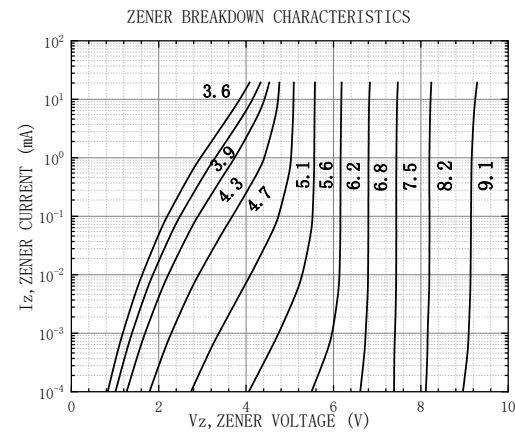
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type Number	Device Marking	V _z at I _{zt} (V)			I _{zt}	Z _{zt} (Ω)		Z _{zk} (Ω)		I _R (μA)@V _R		Typical Temperature Coefficient@ I _{ZTC} mV/°C		Test Current I _{ZTC}
		min.	typ.	max.	mA	I _{zt} (mA)	max.	I _{zk} (mA)	max.	uA	V _R (V)	Min	Max	mA
DZ23B3V6HQ	2V4	3.53	3.6	3.67	5	5	90	1.0	600	5	1.0	-3.5	0	5
DZ23B3V9HQ	2V5	3.82	3.9	3.98	5	5	90	1.0	600	3	1.0	-3.5	0	5
DZ23B4V3HQ	2V6	4.21	4.3	4.39	5	5	90	1.0	600	3	1.0	-3.5	0	5
DZ23B4V7HQ	2V7	4.61	4.7	4.79	5	5	80	1.0	500	3	2.0	-3.5	0.2	5
DZ23B5V1HQ	2V8	5.0	5.1	5.2	5	5	60	1.0	480	2	2.0	-2.7	1.2	5
DZ23B5V6HQ	2V9	5.49	5.6	5.71	5	5	40	1.0	400	1	2.0	-2	2.5	5
DZ23B6V2HQ	2VA	6.08	6.2	6.32	5	5	10	1.0	150	3	4.0	0.4	3.7	5
DZ23B6V8HQ	2VB	6.66	6.8	6.94	5	5	15	1.0	80	2	4.0	1.2	4.5	5
DZ23B7V5HQ	2VC	7.35	7.5	7.65	5	5	15	1.0	80	1	5.0	2.5	5.3	5
DZ23B8V2HQ	2VD	8.04	8.2	8.36	5	5	15	1.0	80	0.7	5.0	3.2	6.2	5
DZ23B9V1HQ	2VE	8.92	9.1	9.28	5	5	15	1.0	100	0.5	6.0	3.8	7.0	5
DZ23B10HQ	2VF	9.8	10	10.2	5	5	20	1.0	150	0.2	7.0	4.5	8.0	5
DZ23B11HQ	2VG	10.78	11	11.22	5	5	20	1.0	150	0.1	8.0	5.4	9.0	5
DZ23B12HQ	2VH	11.76	12	12.24	5	5	25	1.0	150	0.1	8.0	6.0	10.0	5
DZ23B13HQ	2VI	12.74	13	13.3	5	5	30	1.0	170	0.1	8.0	7.0	11.0	5
DZ23B15HQ	2VJ	14.7	15	15.3	5	5	30	1.0	200	0.1	10.5	9.2	13.0	5
DZ23B16HQ	2VK	15.68	16	16.3	5	5	40	1.0	200	0.1	11.2	10.4	14.0	5
DZ23B18HQ	2VL	17.6	18	18.4	5	5	45	1.0	225	0.1	12.6	12.4	16.0	5
DZ23B20HQ	2VM	19.6	20	20.4	5	5	55	1.0	225	0.1	14.0	14.4	18.0	5
DZ23B22HQ	2VN	21.56	22	22.44	5	5	55	1.0	250	0.1	15.4	16.4	20.0	5
DZ23B24HQ	2VO	23.52	24	24.5	5	5	70	1.0	250	0.1	16.8	18.4	22.0	5
DZ23B27HQ	2VP	26.46	27	27.54	2	2	80	0.5	300	0.1	18.9	21.4	25.3	2
DZ23B30HQ	2VQ	29.4	30	30.6	2	2	80	0.5	300	0.1	21.0	24.4	29.4	2
DZ23B33HQ	2VR	32.34	33	33.7	2	2	80	0.5	325	0.1	23.1	27.4	33.4	2
DZ23B36HQ	2VS	35.28	36	36.72	2	2	90	0.5	350	0.1	25.2	30.4	37.4	2



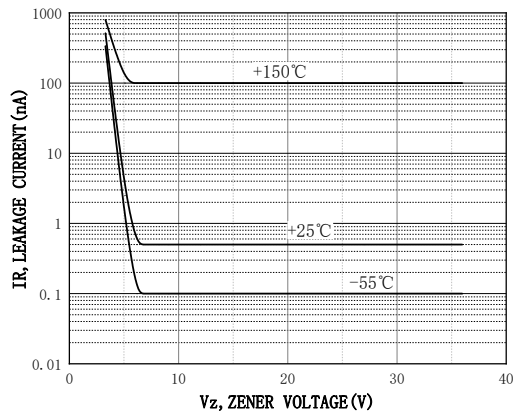
DZ23B3V6HQ THRU DZ23B36HQ

■ Characteristics (Typical)





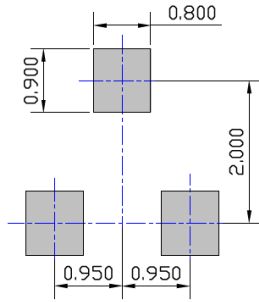
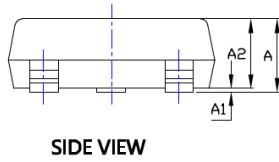
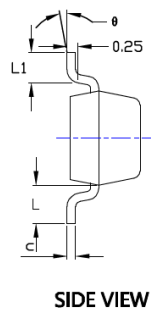
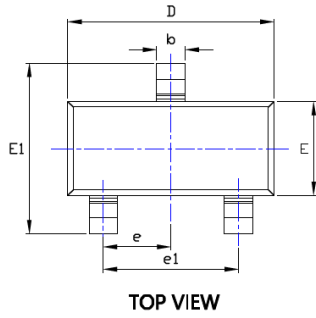
DZ23B3V6HQ THRU DZ23B36HQ





DZ23B3V6HQ THRU DZ23B36HQ

■ Outline Dimensions



UNIT: mm

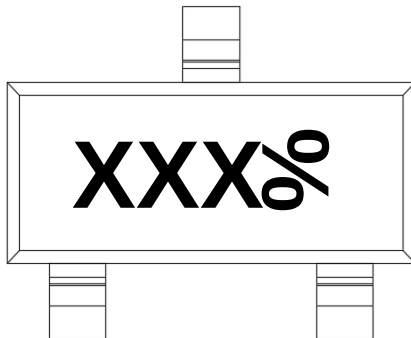
SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.200	0.300	0.500
θ	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. XXX is Marking Code
4. % is a date code, rotated 90° counterclockwise

*Date Code vary depending upon production date



DZ23B3V6HQ THRU DZ23B36HQ

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