

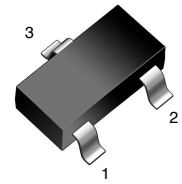
GAZ23CxxxW Series

Surface Mount Zener Diodes

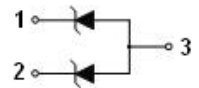
Vz Range: 2.7 to 39V Power Dissipation: 200mW

Features

- Dual zeners in common anode configuration.
- 200mW power dissipation rating.
- Ideally suited for automatic insertion.
- ΔV_z for both diodes in one case is $\leq 5\%$.



SOT-323



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F = 10mA	V _F	0.9	V
Power Dissipation	P _d	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	625	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

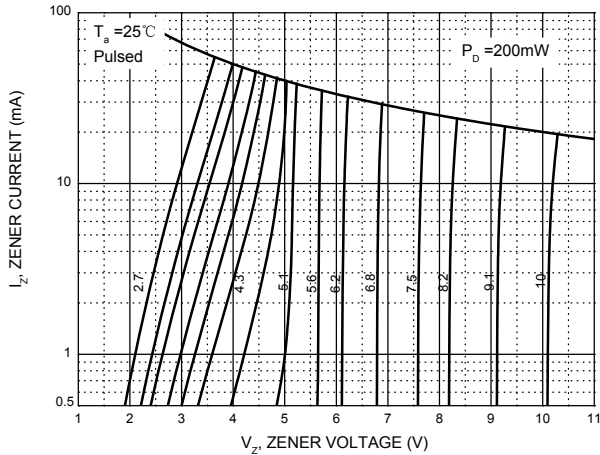
Electrical Characteristics (T_A=25°C unless otherwise specified)

Type Number	Marking Code	Zener Voltage Range (note1)	Maximum Zener Impedance (note 2)		Typical Temperature Coefficient	Min Reverse Voltage (note1)
		@ I _{ZT} =5.0mA	Z _{ZT} @I _{ZT} =5.0mA	Z _{ZK} @I _{ZK} =1.0mA		@I _R =0.1μA
		V _Z (V)	Ω	Ω		V _R (V)
GAZ23C2V7W	KD1	2.5-2.9	83	500	-0.065	—
GAZ23C3V0W	KD2	2.8-3.2	95	500	-0.060	—
GAZ23C3V3W	KD3	3.1-3.5	95	500	-0.055	—
GAZ23C3V6W	KD4	3.4-3.8	95	500	-0.055	—
GAZ23C3V9W	KD5	3.7-4.1	95	500	-0.050	—
GAZ23C4V3W	KD6	4.0-4.6	95	500	-0.035	—
GAZ23C4V7W	KD7	4.4-5.0	78	500	-0.015	—
GAZ23C5V1W	KD8	4.8-5.4	60	480	+0.005	0.8
GAZ23C5V6W	KD9	5.2-6.0	40	400	+0.020	1.0
GAZ23C6V2W	KDA	5.8-6.6	10	200	+0.030	2.0
GAZ23C6V8W	KDB	6.4-7.2	8.0	150	+0.045	3.0
GAZ23C7V5W	KDC	7.0-7.9	7.0	50	+0.050	5.0
GAZ23C8V2W	KDD	7.7-8.7	7.0	50	+0.055	6.0
GAZ23C9V1W	KDE	8.5-9.6	10	50	+0.065	7.0
GAZ23C10W	KDF	9.4-10.6	15	70	+0.065	7.5
GAZ23C11W	KDG	10.4-11.6	20	70	+0.070	8.5
GAZ23C12W	KDH	11.4-12.7	20	90	+0.075	9.0
GAZ23C13W	KDI	12.4-14.1	25	110	+0.080	10.0
GAZ23C15W	KDJ	13.8-15.6	30	110	+0.080	11.0
GAZ23C16W	KDK	15.3-17.1	40	170	+0.090	12.0
GAZ23C18W	KDL	16.8-19.1	50	170	+0.090	14.0
GAZ23C20W	KDM	18.8-21.2	50	220	+0.090	15.0
GAZ23C22W	KDN	20.8-23.3	55	220	+0.090	17.0
GAZ23C24W	KDO	22.8-25.6	80	220	+0.090	18.0
GAZ23C27W	KDP	25.1-28.9	80	250	+0.090	20.0
GAZ23C30W	KDQ	28-32	80	250	+0.090	22.5
GAZ23C33W	KDR	31-35	80	250	+0.090	25.0
GAZ23C36W	KDS	34-38	90	250	+0.090	27.0
GAZ23C39W	KDT	37-41	90	300	+0.110	29.0

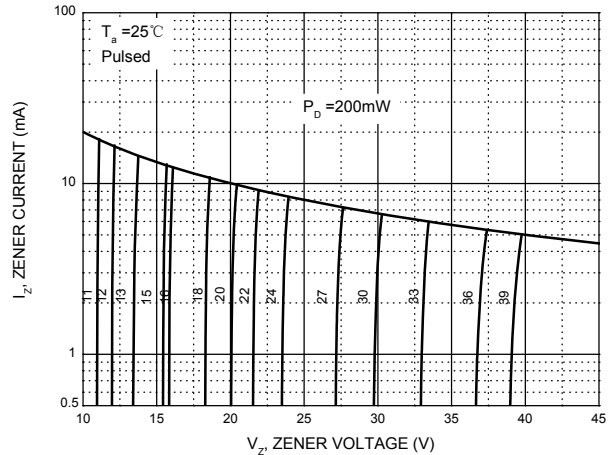
Notes: 1. Short duration test pulse used to minimize self-heating effect
2. f=1kHz

Typical Characteristics Curves

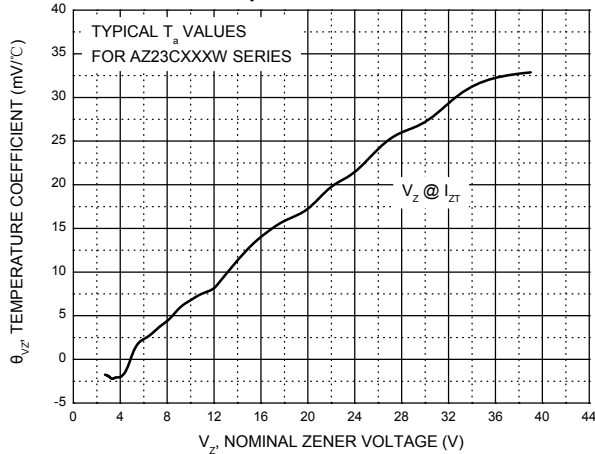
Zener Characteristics (V_z Up to 10 V)



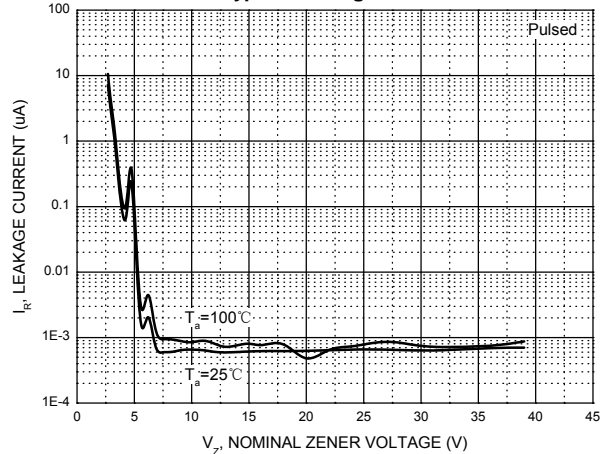
Zener Characteristics (11 V to 43 V)



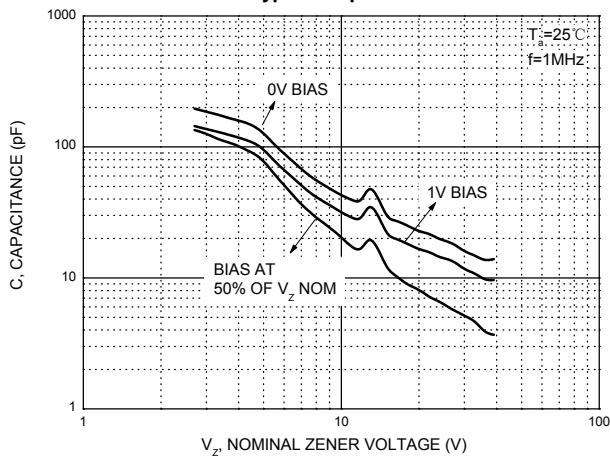
Temperature Coefficients



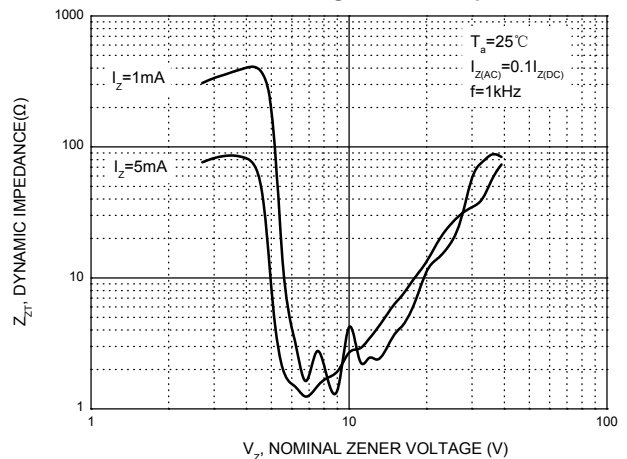
Typical Leakage Current



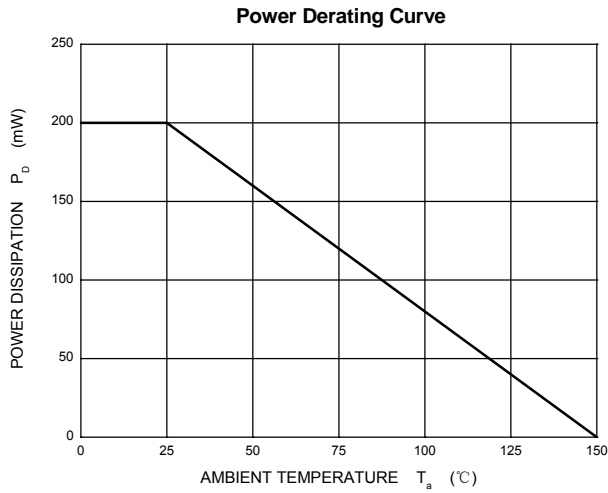
Typical Capacitance



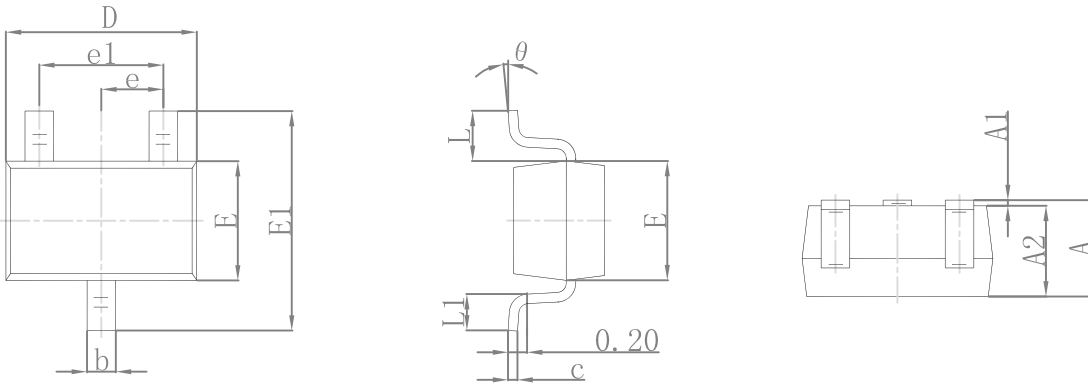
Effect of Zener Voltage on Zener Impedance



Typical Characteristics Curves

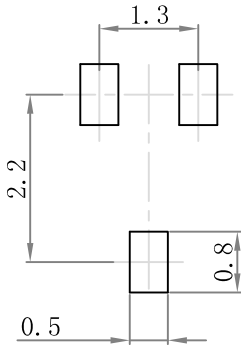


Package Outline Dimensions SOT-323



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Order Information

Device	Package	Carrier	Quantity	HSF Status
GAZ23CXXXW	SOT-323	Tape & Reel	3000pcs / Reel	RoHS compliant