

AZ23C2V7~AZ23C51

ZENER DIODES

VOLTAGE 2.7 to 51 Volt **POWER** 0.3 Watt

SOT-23

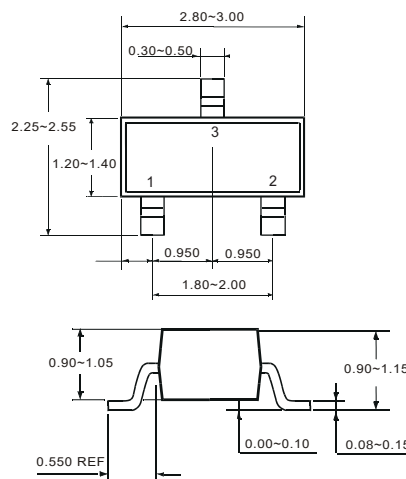
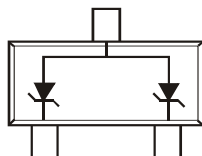
Unit:mm

FEATURES

- Dual zeners in common anode configuration.
- Ideally suited for automatic insertion.
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation	P_d	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

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ELECTRICAL CHARACTERISTICS @25°C

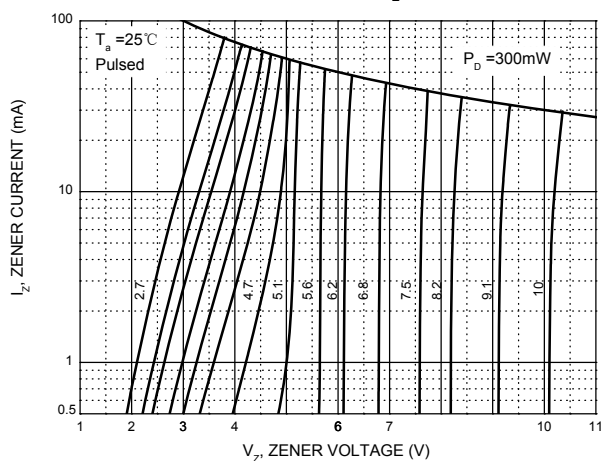
Type Number	Marking Code	Zener Voltage Range (Note 1)	Maximum Zener Impedance f = 1kHz		Typical Temperature Coefficient T _C (%/°C)	Min. Reverse Voltage (Note 1)
		@ I _{ZT} = 5.0mA	Z _{ZT} @ I _{ZT} = 5.0mA	Z _{ZK} @ I _{ZK} = 1.0mA		@ I _R = 0.1μA
		V _Z (V)	Ω	Ω		V _R (V)
AZ23C2V7	D1	2.5 to 2.9	83	500	-0.065	—
AZ23C3V0	D2	2.8 to 3.2	95	500	-0.060	—
AZ23C3V3	D3	3.1 to 3.5	95	500	-0.055	—
AZ23C3V6	D4	3.4 to 3.8	95	500	-0.055	—
AZ23C3V9	D5	3.7 to 4.1	95	500	-0.050	—
AZ23C4V3	D6	4.0 to 4.6	95	500	-0.035	—
AZ23C4V7	D7	4.4 to 5.0	78	500	-0.015	—
AZ23C5V1	D8	4.8 to 5.4	60	480	0.005	0.8
AZ23C5V6	D9	5.2 to 6.0	40	400	0.020	1.0
AZ23C6V2	DA	5.8 to 6.6	10	200	0.030	2.0
AZ23C6V8	DB	6.4 to 7.2	8.0	150	0.045	3.0
AZ23C7V5	DC	7.0 to 7.9	7.0	50	0.050	5.0
AZ23C8V2	DD	7.7 to 8.7	7.0	50	0.055	6.0
AZ23C9V1	DE	8.5 to 9.6	10	50	0.065	7.0
AZ23C10	DF	9.4 to 10.6	15	70	0.065	7.5
AZ23C11	DG	10.4 to 11.6	20	70	0.070	8.5
AZ23C12	DH	11.4 to 12.7	20	90	0.075	9.0
AZ23C13	DI	12.4 to 14.1	25	110	0.080	10.0
AZ23C15	DJ	13.8 to 15.6	30	110	0.080	11.0
AZ23C16	DK	15.3 to 17.1	40	170	0.090	12.0
AZ23C18	DL	16.8 to 19.1	50	170	0.090	14.0
AZ23C20	DM	18.8 to 21.2	50	220	0.090	15.0
AZ23C22	DN	20.8 to 23.3	55	220	0.090	17.0
AZ23C24	DO	22.8 to 25.6	80	220	0.090	18.0
AZ23C27	DP	25.1 to 28.9	80	250	0.090	20.0
AZ23C30	DQ	28 to 32	80	250	0.090	22.5
AZ23C33	DR	31 to 35	80	250	0.090	25.0
AZ23C36	DS	34 to 38	90	250	0.090	27.0
AZ23C39	DT	37 to 41	90	300	0.110	29.0
AZ23C43	30	40 to 46	100	700	0.110	32.0
AZ23C47	31	44 to 50	100	750	0.110	35.0
AZ23C51	32	48 to 54	100	750	0.110	38.0

Note: 1. Short duration pulse test used to minimize self-heating effect.

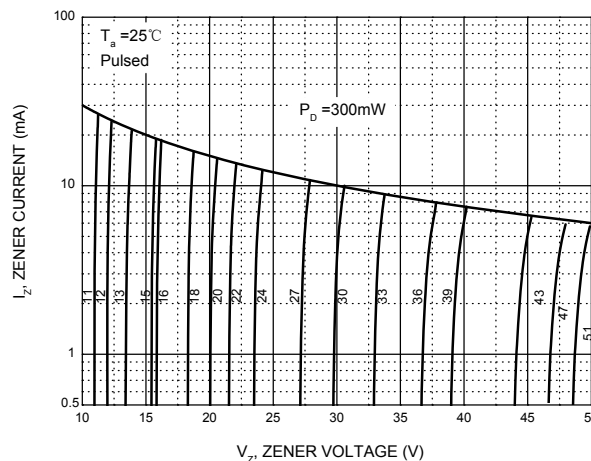
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RATING AND CHARACTERISTIC CURVES

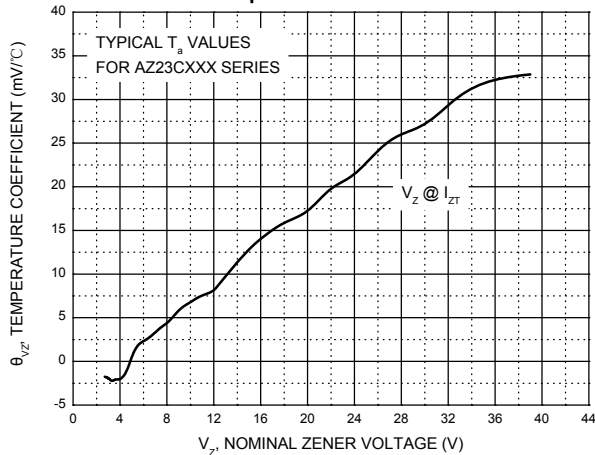
Zener Characteristics (V_Z Up to 10 V)



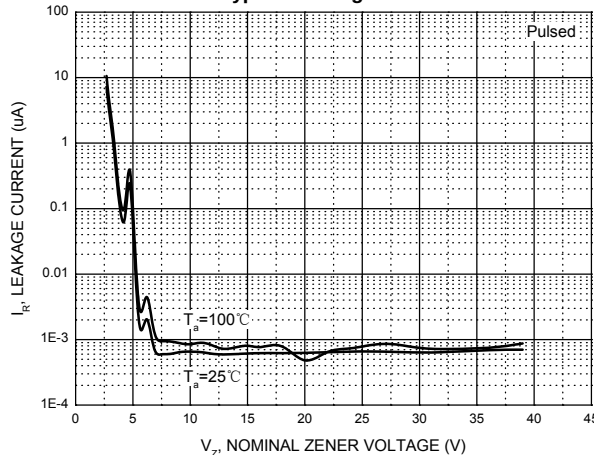
Zener Characteristics (11 V to 51 V)



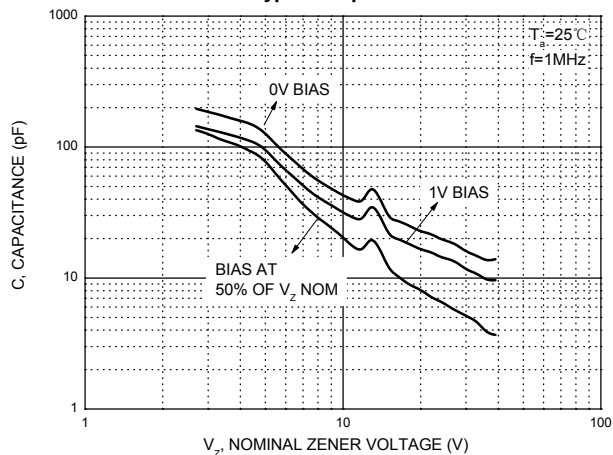
Temperature Coefficients



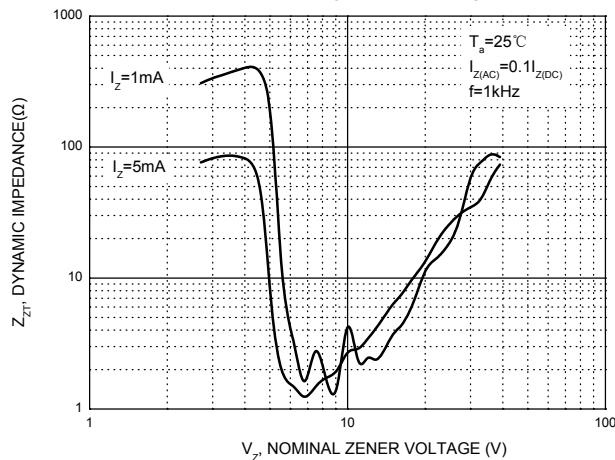
Typical Leakage Current



Typical Capacitance

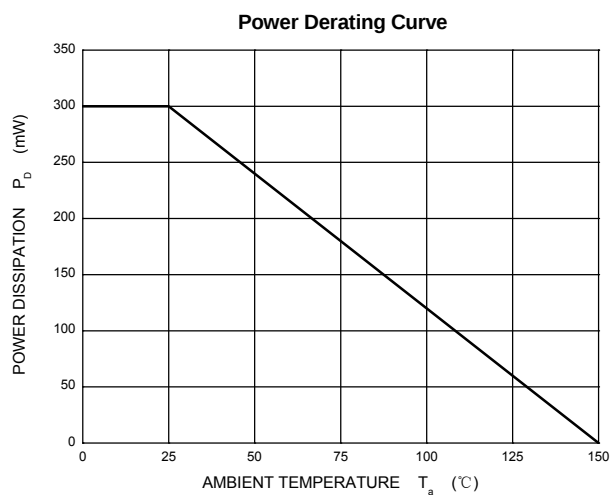


Effect of Zener Voltage on Zener Impedance



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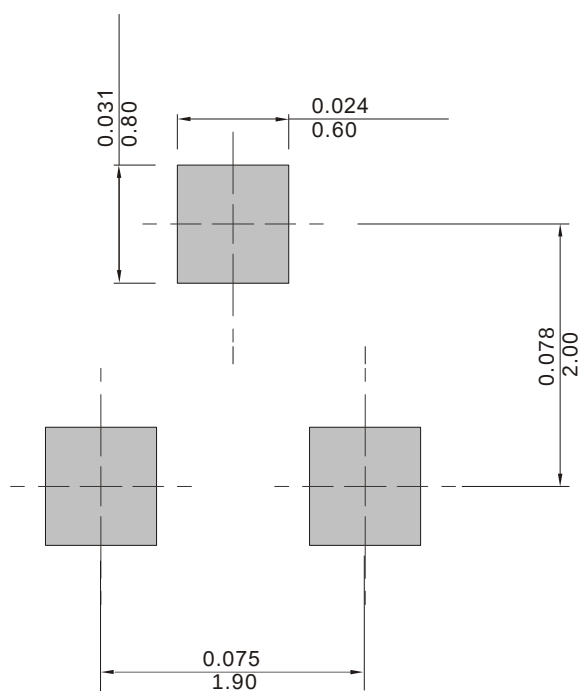


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MOUNTING PAD LAYOUT

SOT-23

Unit:Inch(mm)



ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
AZ23C2V7~AZ23C51	SOT-23	7 Inch	3000