

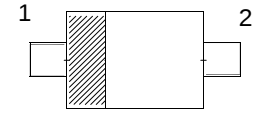
SOD-323 Plastic-Encapsulate Zener Diode

Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability

Mechanical Data

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Cathode  Anode

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Power Dissipation	P_d	200 ¹⁾	mW
Forward Voltage @ $I_F=10\text{mA}$	V_f	0.9 ²⁾	V
Storage temperature range	T_s	-65-+150	°C

1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²

2) Short duration test pulse used to minimize self-heating effect

3) f=1KHz

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

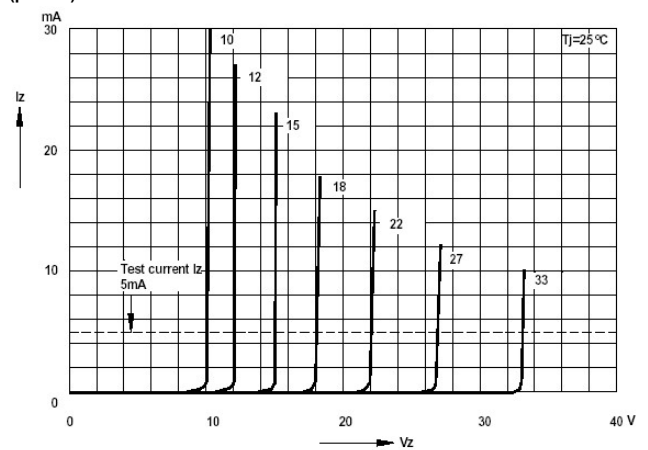
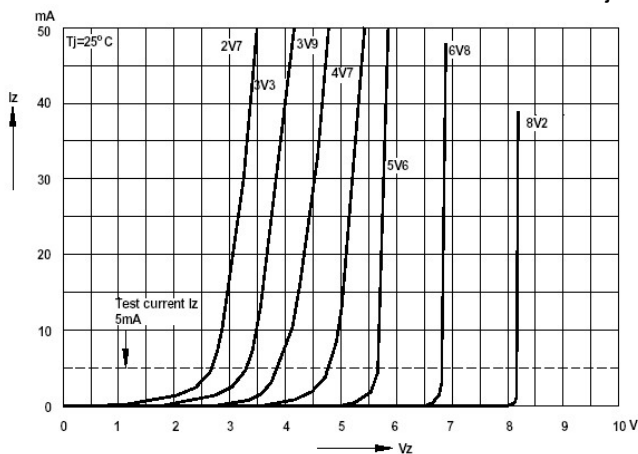
Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
		Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR			
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	uA	V	Min	Max	mA	
AS2V4A201M	2WX	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0	5
AS2V7A201M	2W1	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0	5
AS3VA201M	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5
AS3V3A201M	2W3	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0	5
AS3V6A201M	2W4	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0	5
AS3V9A201M	2W5	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0	5
AS4V3A201M	2W6	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0	5
AS4V7A201M	2W7	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2	5
AS5V1A201M	2W8	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2	5
AS5V6A201M	2W9	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5	5
AS6V2A201M	2WA	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7	5
AS6V8A201M	2WB	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5	5
AS7V5A201M	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5
AS8V2A201M	2WD	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2	5
AS9V1A201M	2WE	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0	5
AS10VA201M	2WF	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0	5
AS11VA201M	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5
AS12VA201M	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5
AS13VA201M	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5

SOD-323 Plastic-Encapsulate Zener Diode

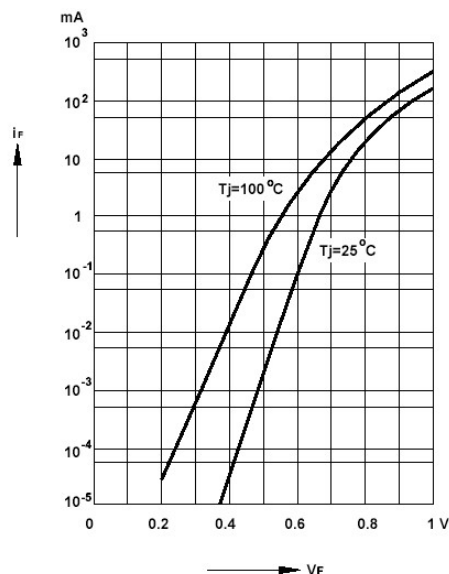
Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/℃		Test Current IZTC
		Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	uA	V			
AS15VA201M	2WJ	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0	5
AS16VA201M	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5
AS18VA201M	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5
AS20VA201M	2WM	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0	5
AS22VA201M	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5
AS24VA201M	2WO	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0	5
AS27VA201M	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2
AS30VA201M	2WQ	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4	2
AS33VA201M	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2
AS36VA201M	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2
AS39VA201M	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2
AS43VA201M	2WU	43	41.16	43.84	2	100	700	1.0	0.1	32.0	10.0	12.0	5

Breakdown characteristics

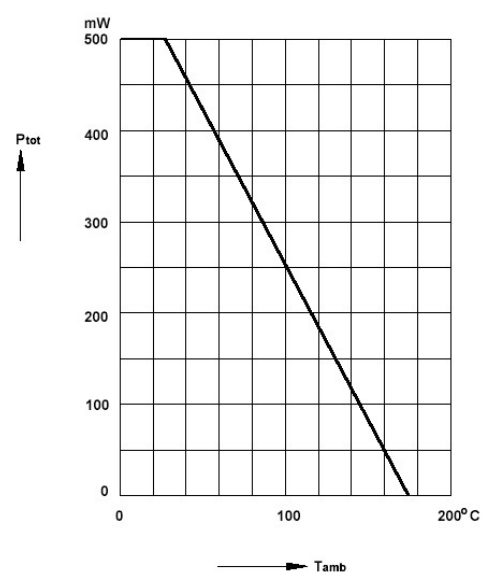
at Tj=constant (pulsed)



Forward characteristics

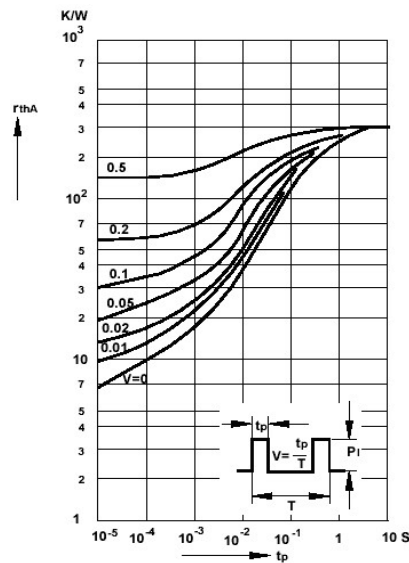


Admissible power dissipation versus ambient temperature

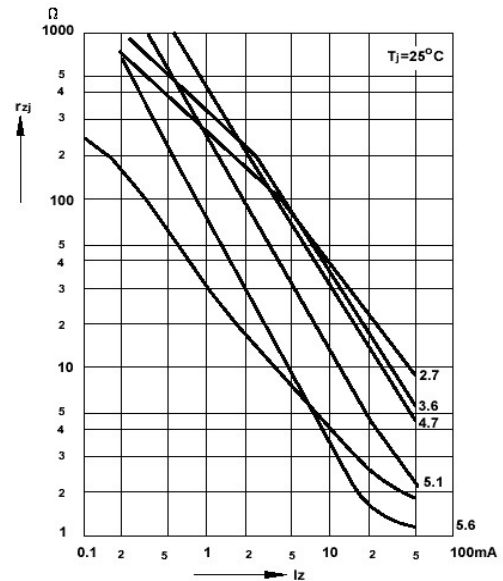


SOD-323 Plastic-Encapsulate Zener Diode

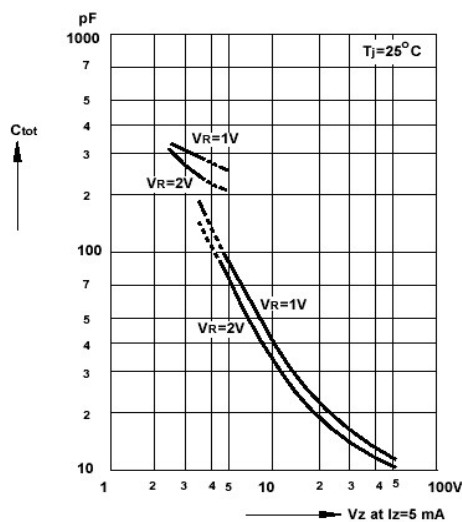
Pulse thermal resistance versus pulse duration



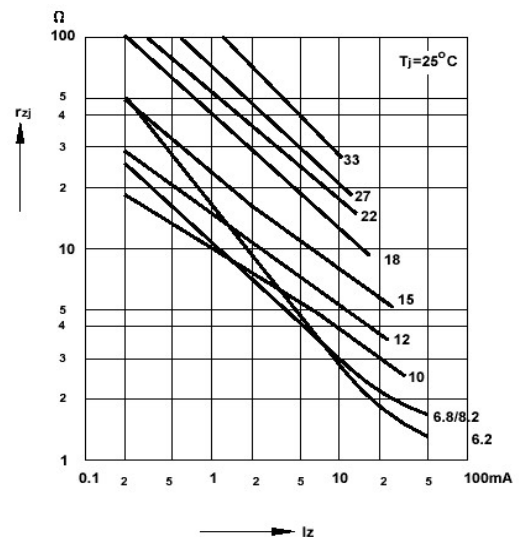
Dynamic resistance versus Zener current



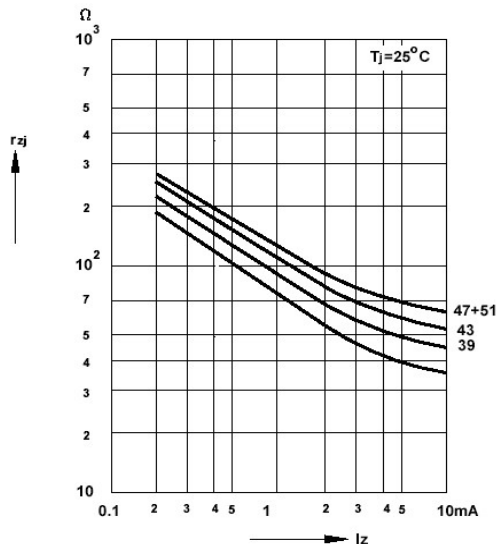
Capacitance versus Zener voltage



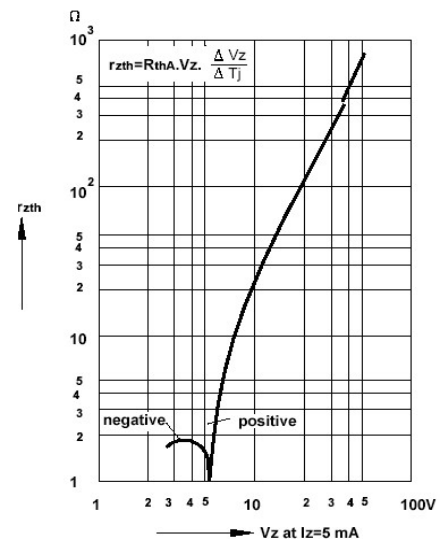
Dynamic resistance versus Zener current



Dynamic resistance versus Zener current

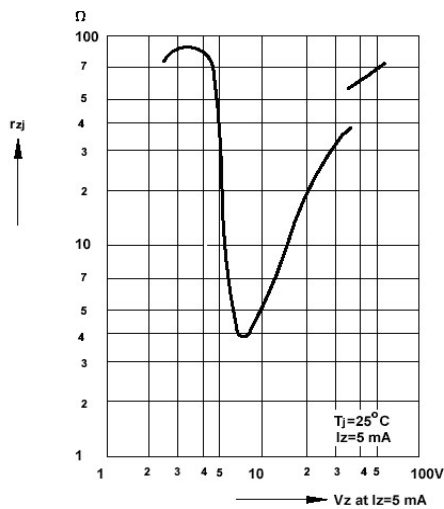


Thermal differential resistance versus Zener voltage

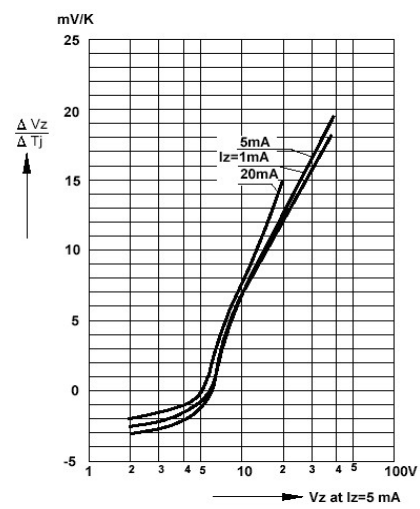


SOD-323 Plastic-Encapsulate Zener Diode

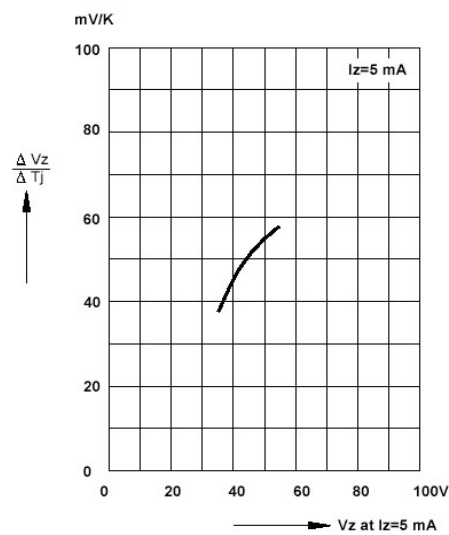
Dynamic resistance versus Zener voltage



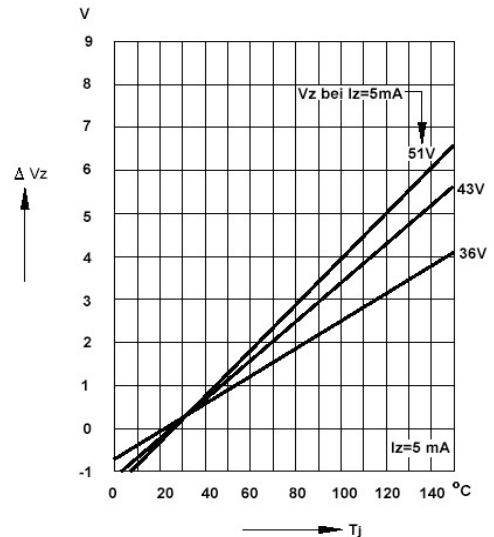
Temperature dependence of Zener voltage versus Zener voltage



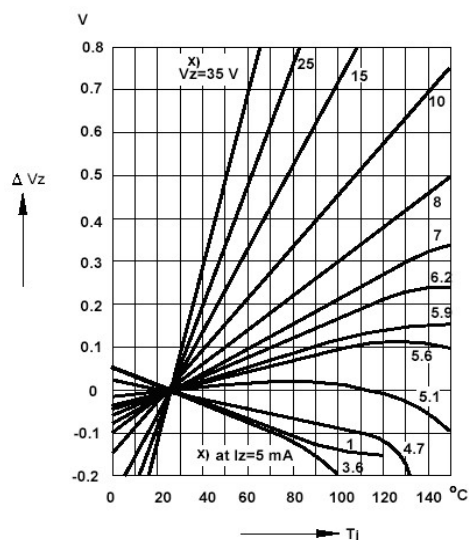
Temperature dependence of Zener voltage versus Zener voltage



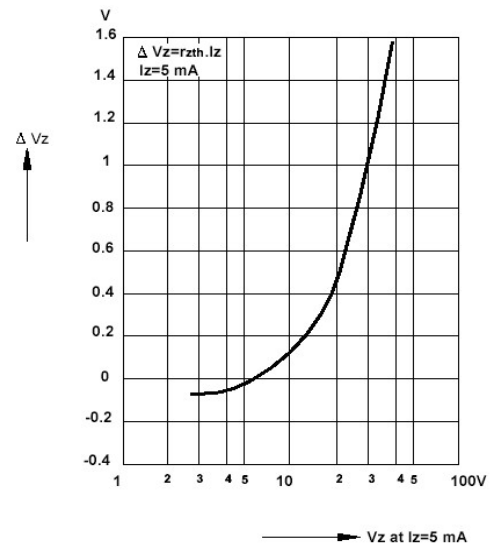
Change of Zener voltage versus junction temperature



Change of Zener voltage versus junction temperature

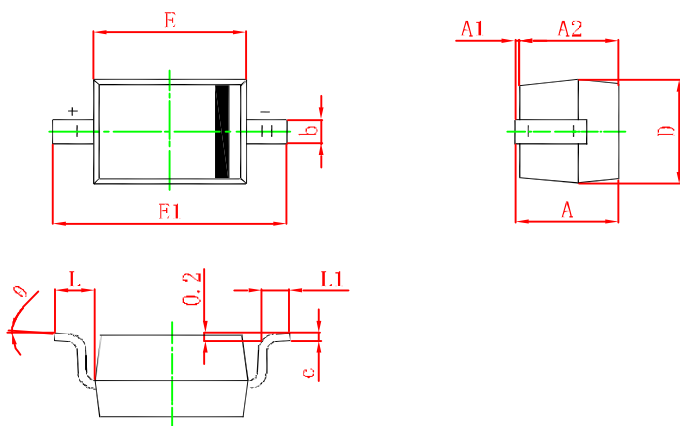


Change of Zener voltage from turn-on up to the point of thermal equilibrium versus Zener voltage



SOD-323 Plastic-Encapsulate Zener Diode

SOD-323 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Min.(mm)	Max.(mm)
A	0.800	1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°