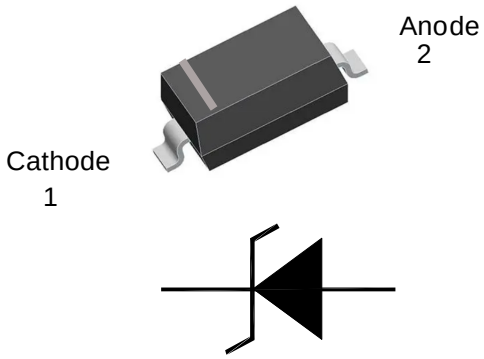
AS2V4-39VF501M

Plastic-Encapsulate Diodes

SOD-123



FEATURE

- Planar Die Construction
- 500mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version
- Tolerance approximately ± 2%

Maximum Ratings(T_a=25℃unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ I_F = 10mA	V_F	0.9	V
Power Dissipation(Note 1)	P_d	500	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ +150	℃

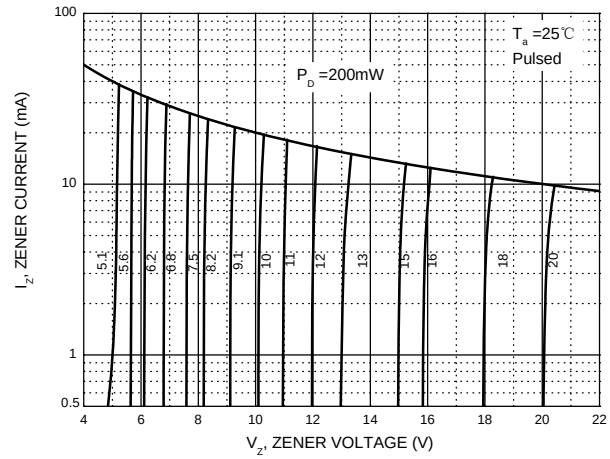
Electrical Characteristics(T a = 25°C unless otherwise specified)

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current		Typical Temperature Coefficent @I_{ZTC}		Test Current I_{ZTC}
		V_Z@I_{ZT}			I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R	V_R	mV/°C		
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	mA
AS2V4F501M	2WX	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0	5
AS2V7F501M	2W1	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0	5
AS3V0F501M	2W2	3.0	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0	5
AS3V3F501M	2W3	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0	5
AS3V6F501M	2W4	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0	5
AS3V9F501M	2W5	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0	5
AS4V3F501M	2W6	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0	5
AS4V7F501M	2W7	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2	5
AS5V1F501M	2W8	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2	5
AS5V6F501M	2W9	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5	5
AS6V2F501M	2WA	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7	5
AS6V8F501M	2WB	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5	5
AS7V5F501M	2WC	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3	5
AS8V2F501M	2WD	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2	5
AS9V1F501M	2WE	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0	5
AS10VF501M	2WF	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0	5
AS11VF501M	2WG	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0	5
AS12VF501M	2WH	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0	5
AS13VF501M	2WI	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0	5
AS15VF501M	2WJ	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0	5
AS16VF501M	2WK	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0	5
AS18VF501M	2WL	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0	5
AS20VF501M	2WM	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0	5
AS22VF501M	2WN	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0	5
AS24VF501M	2WO	24	23.52	24.48	2	70	250	1.0	0.1	16.8	18.4	22.0	2
AS27VF501M	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3	2
AS30VF501M	2WQ	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4	2
AS33VF501M	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4	2
AS36VF501M	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4	2
AS39VF501M	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2	2
AS43VF501M	2WU	43	42.14	43.86	2	130	350	0.5	0.1	29.4	36.4	45.2	2
AS47VF501M	2WV	47	46.06	47.94	2	170	353	0.5	0.1	33.0	38.4	46.2	2

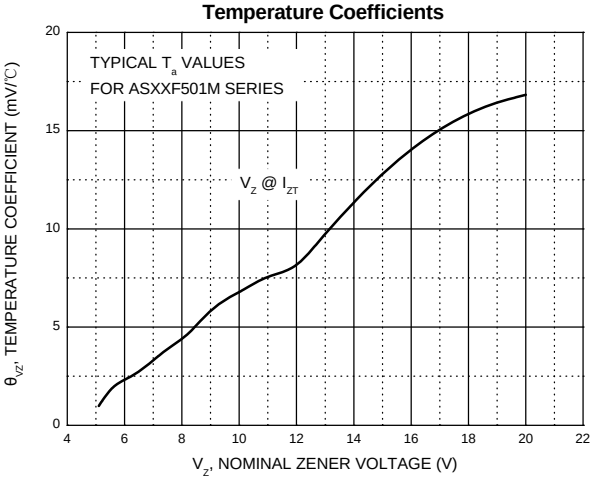
Notes: 1. Device mounted on ceramic PCB:7.6mm x 9.4mm x 0.87mm with pad areas 25mm^2
2. Short duration test pulse used to minimize self-heating effect
3. f = 1kHz

Typical Characteristics

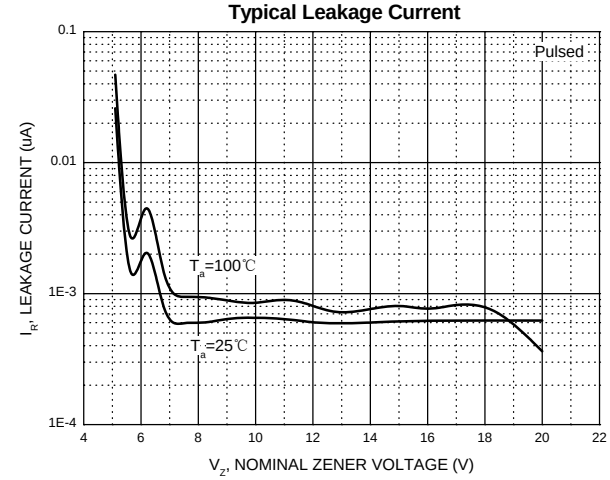
Zener Characteristics (V_z 5.1V to 20 V)



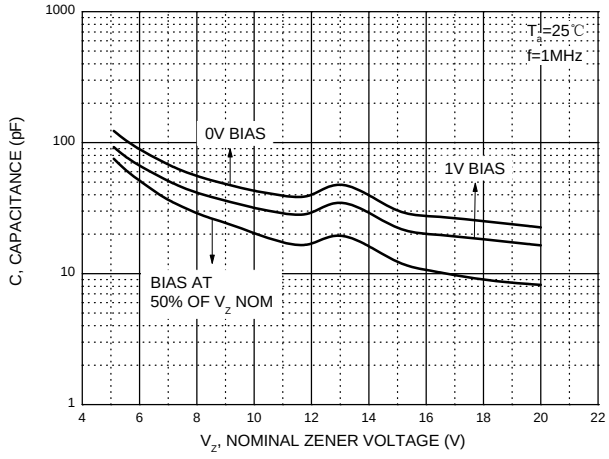
Temperature Coefficients



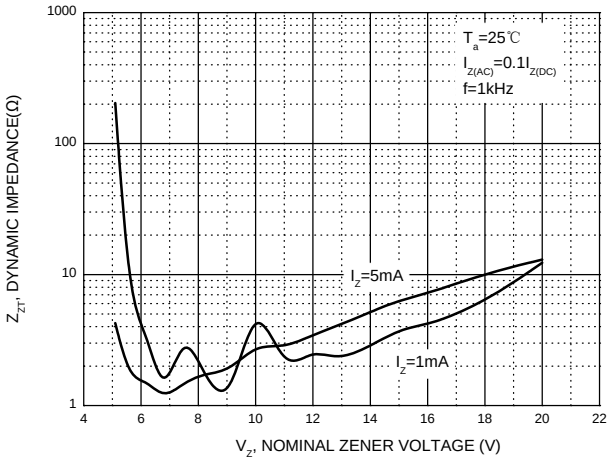
Typical Leakage Current



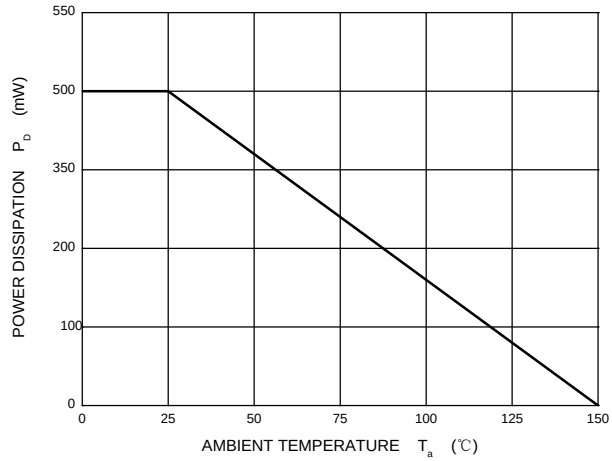
Typical Capacitance



Effect of Zener Voltage on Zener Impedance

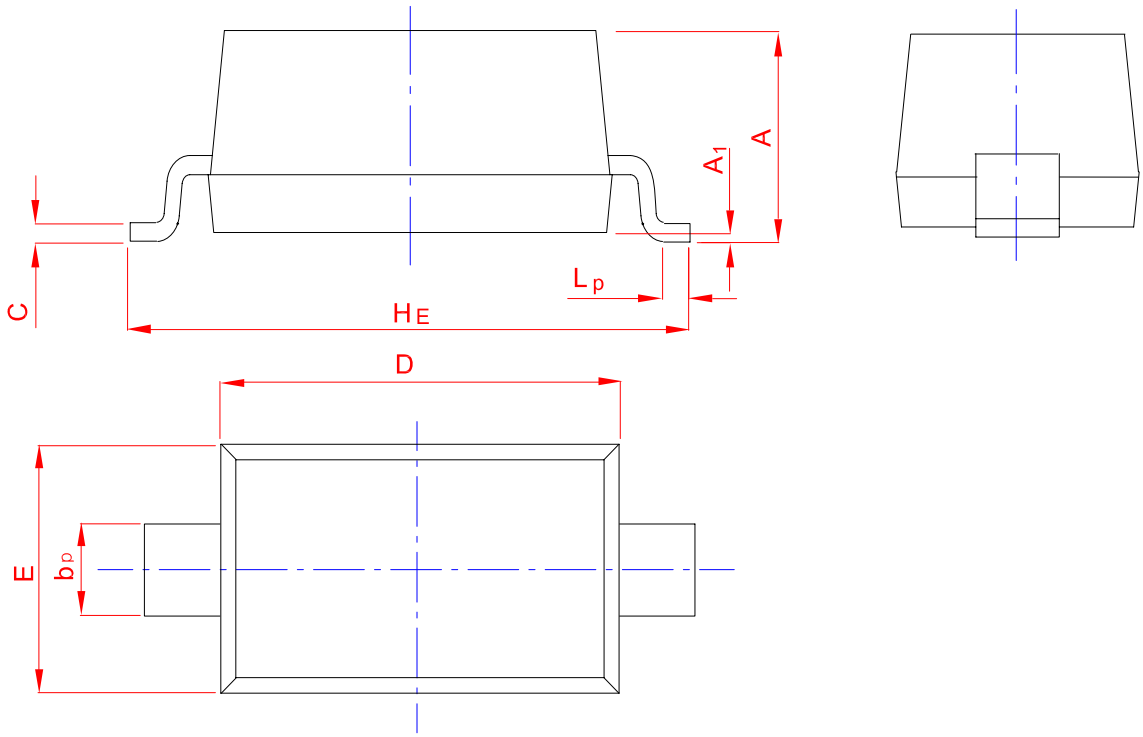


Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20

SOD-123 Suggested Pad Layout