

Zener Diodes, AEC-Q101 4.3~51V 500mW SOD-123

MMSZ5229C-A Series

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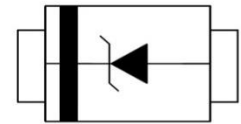
FEATURE

- Zener Voltage Range: 4.3V to 51V
- Power Dissipation: 500mW
- Silicon Planar Zener Diode in SOD-123 package
- Ideally Suited for Automated Assembly Processes
- Application: Power Management Systems, Voltage Regulation
- AEC-Q101 Qualified



MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Band Marking denotes cathode end



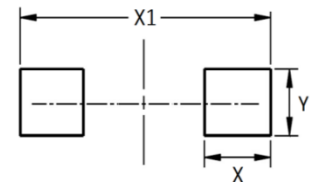
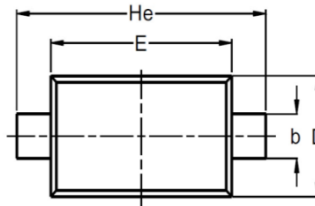
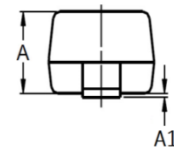
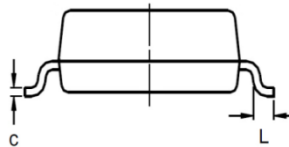
MAXIMUM RATINGS (TA=25 °C unless otherwise noted)



Parameter	Symbols	Value	Unit
Power Dissipation ^(Note 1)	P_D	500	mW
Junction Temperature	T_J	-50~+150	°C
Storage Temperature Range	T_{STG}	-50~+150	°C

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.95	1.35
A1	-	0.12
b	0.50	0.70
C	-	0.20
D	1.40	1.80
E	2.50	2.80
He	3.60	3.90
L	0.40	-
X	0.97	0.97
X1	3.60	3.90
Y	1.22	1.22



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ELECTRICAL CHARACTERISTICS (TA=25 °C unless otherwise noted)

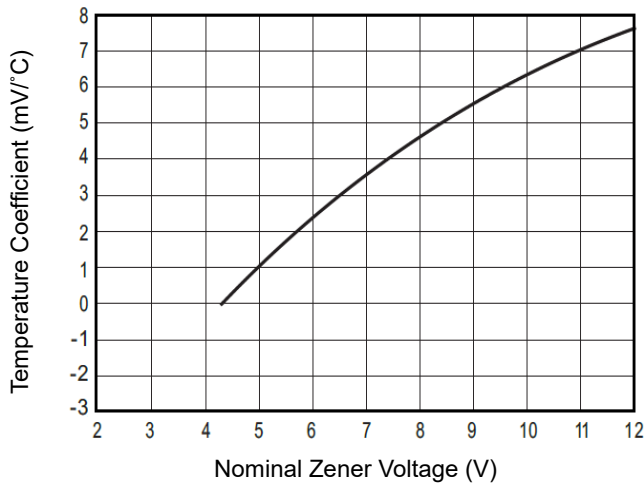
Part Number	Nominal Zener Voltage V _Z at I _{ZT}			Max Zener Impedance Z _{ZT} at I _{ZT} , Z _{ZK} at I _{ZK} =0.25mA			Reverse Leakage Current I _R at V _R	
	Nom	Min	Max	Z _{ZT}	I _{ZT}	Z _{ZK}	I _R max	V _R
	(V)	(V)	(V)	(Ω)	(mA)	(Ω)	(μA)	(V)
MMSZ5229C-A	4.3	4.21	4.39	22	20	2000	5.0	1.0
MMSZ5230C-A	4.7	4.61	4.79	19	20	1900	5.0	2.0
MMSZ5231C-A	5.1	5.00	5.20	17	20	1600	5.0	2.0
MMSZ5232C-A	5.6	5.49	5.71	11	20	1600	5.0	3.0
MMSZ5234C-A	6.2	6.08	6.32	7	20	1000	5.0	4.0
MMSZ5235C-A	6.8	6.66	6.94	5	20	750	3.0	5.0
MMSZ5236C-A	7.5	7.35	7.65	6	20	500	3.0	6.0
MMSZ5237C-A	8.2	8.04	8.36	8	20	500	3.0	6.0
MMSZ5238C-A	8.7	8.53	8.87	8	20	600	3.0	6.5
MMSZ5239C-A	9.1	8.92	9.28	10	20	600	3.0	6.5
MMSZ5240C-A	10	9.80	10.20	17	20	600	3.0	8.0
MMSZ5241C-A	11	10.78	11.22	22	20	600	3.0	8.4
MMSZ5242C-A	12	11.76	12.24	30	20	600	2.0	9.1
MMSZ5243C-A	13	12.74	13.26	13	9.5	600	1.0	9.9
MMSZ5244C-A	14	13.72	14.28	15	9.0	600	0.5	10.5
MMSZ5245C-A	15	14.70	15.30	16	8.5	600	0.5	11.0
MMSZ5246C-A	16	15.68	16.32	17	7.8	600	0.1	12.0
MMSZ5247C-A	17	16.66	17.34	19	7.5	600	0.1	13.0
MMSZ5248C-A	18	17.64	18.36	21	7.0	600	0.1	14.0
MMSZ5250C-A	20	19.60	20.40	25	6.2	600	0.1	15.0
MMSZ5251C-A	22	21.56	22.44	29	5.6	600	0.1	17.0
MMSZ5252C-A	24	23.52	24.48	33	5.2	600	0.1	18.0
MMSZ5254C-A	27	26.46	27.54	41	5.0	600	0.1	21.0
MMSZ5255C-A	28	27.44	28.56	44	4.5	600	0.1	21.0
MMSZ5256C-A	30	29.40	30.60	49	4.2	600	0.1	23.0
MMSZ5257C-A	33	32.34	33.66	58	3.8	700	0.1	25.0
MMSZ5258C-A	36	35.28	36.72	70	3.4	700	0.1	27.0
MMSZ5259C-A	39	38.22	39.78	80	3.2	800	0.1	30.0
MMSZ5260C-A	43	42.14	43.86	93	3.0	900	0.1	33.0
MMSZ5261C-A	47	46.06	47.94	105	2.7	1000	0.1	36.0
MMSZ5262C-A	51	49.98	52.02	125	2.5	1100	0.1	39.0

Notes:

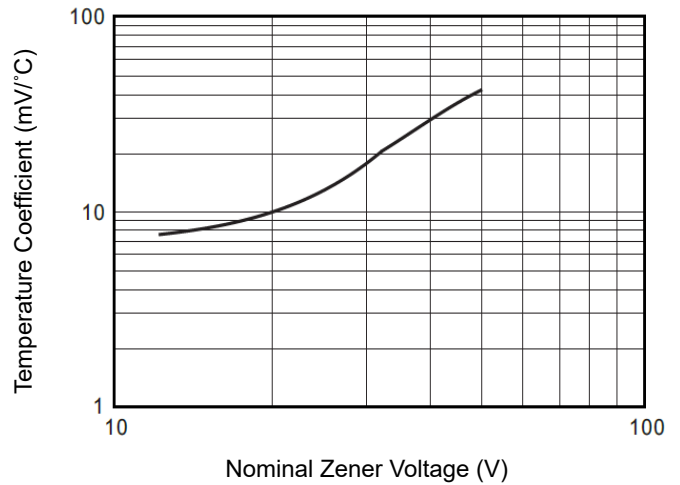
1. Mounted on 5.0mm² (0.013mm thick) land areas.

CHARACTERISTIC CURVES

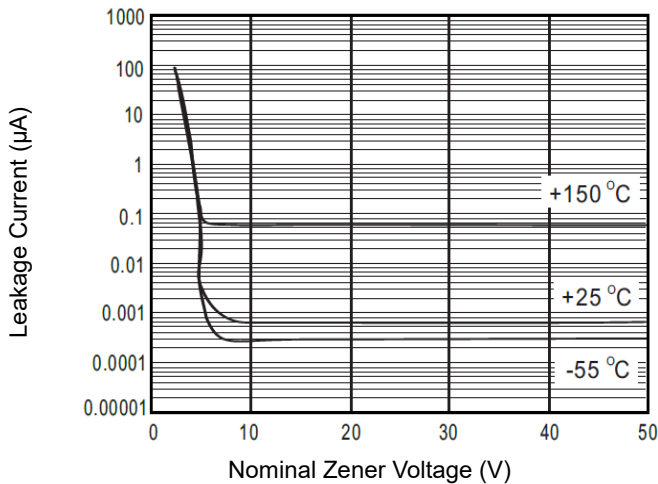
Temperature Coefficient



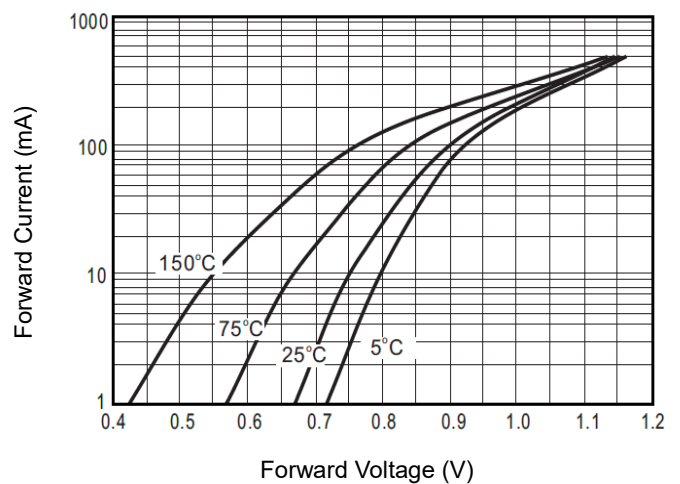
Temperature Coefficient



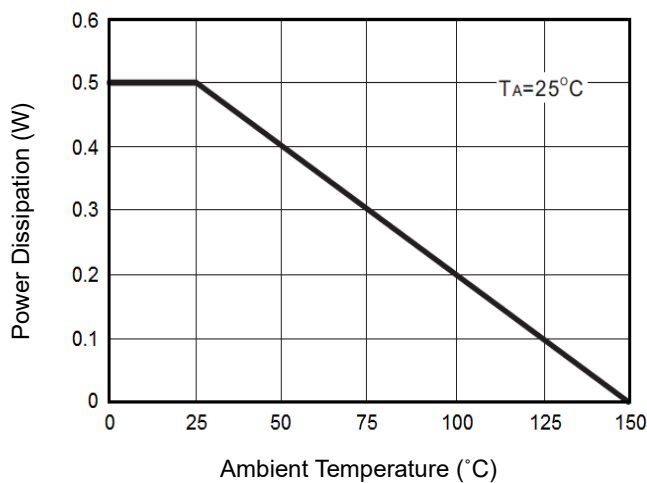
Typical Leakage Current



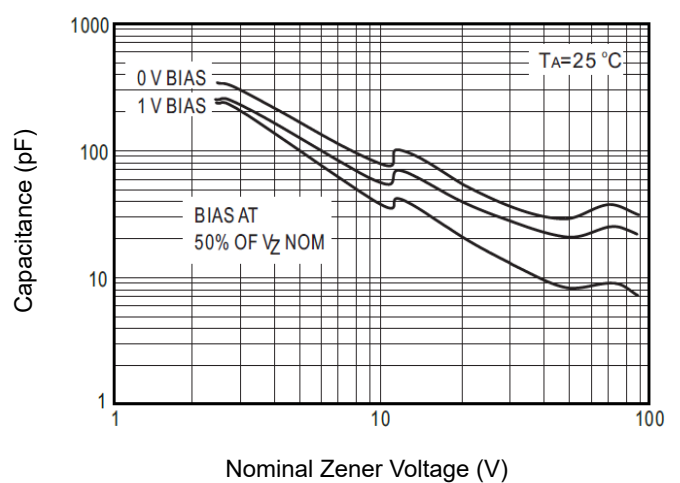
Typical Forward Voltage



Steady-State Power Derating



Typical Capacitance

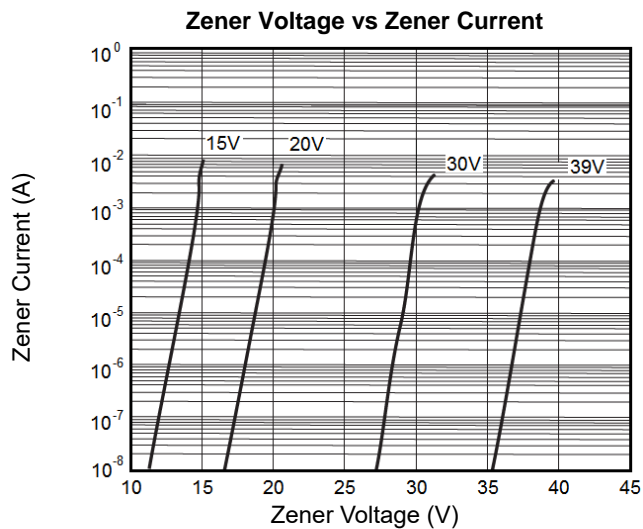
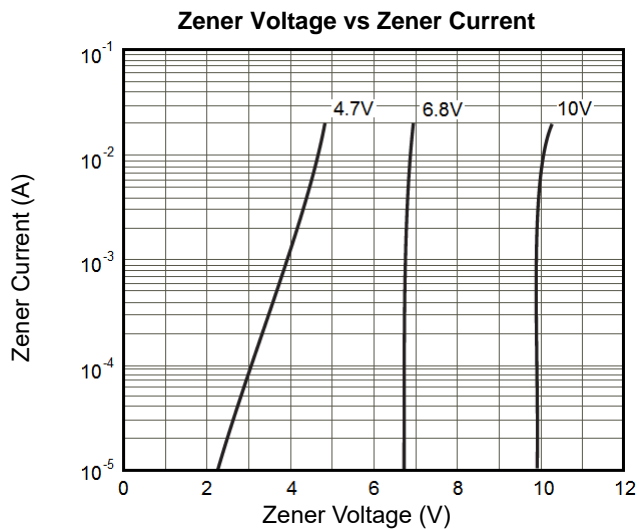


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CHARACTERISTIC CURVES



*Specifications subject to change without notice.