



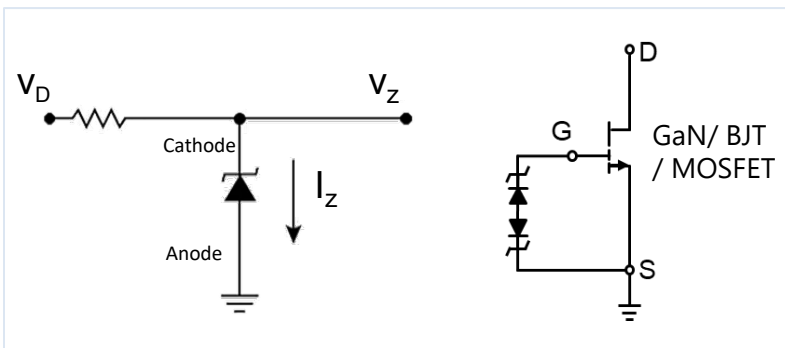
# 500mW, Low IZT 1.8V-39V Surface Mount Zeners

Taiwan Semiconductor has launched a family of low-bias current Zener diodes. These 50  $\mu\text{A}$  IZT Zener diodes feature popular industry standard SOD-123 packages.

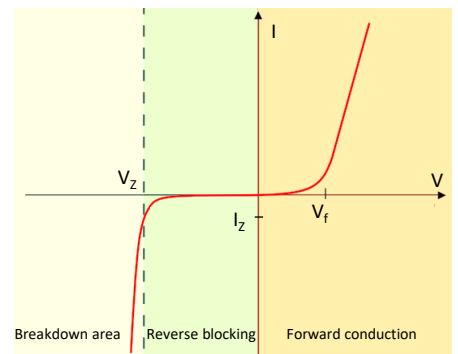
These efficient diodes are specified at low bias current (50  $\mu\text{A}$ ), suitable for low-bias, energy harvesting and portable battery-powered devices in industrial applications. This reduces losses and increases battery life.



SOD-123



General-purpose circuit



I-V characteristic of a Zener diode

## Key Features

- Specified at a low-test current (50  $\mu\text{A}$ )
- Tolerance approximately:  $\pm 5\%$
- Wide working voltage range  $V_Z$ : 1.8 V to 39 V
- Packages: SOD-123

## Applications

- General-purpose Zener drop in upgrade
- Low-current general regulation functions
- Portable applications
- Industrial devices
- Lighting systems
- Energy harvesting

## Product Portfolio

Part Number	Marking Code	Zener Voltage $V_Z@I_{ZT}$ (V)			Test Current $I_{ZT}$ ( $\mu\text{A}$ )	Leakage Current $I_R@V_R$	
		Min	Nom	Max		$\mu\text{A}$	V
MMSZ4678	CC	1.710	1.8	1.890	50	7.5	1.0
MMSZ4679	CD	1.900	2.0	2.100	50	5.0	1.0
MMSZ4680	CE	2.090	2.2	2.310	50	4.0	1.0
MMSZ4681	CF	2.280	2.4	2.520	50	2.0	1.0
MMSZ4682	CH	2.565	2.7	2.835	50	1.0	1.0





Part Number	Marking Code	Zener Voltage $V_Z@I_{ZT}$ (V)			Test Current $I_{ZT}$ ( $\mu$ A)	Leakage Current $I_R@V_R$	
		Min	Nom	Max		$\mu$ A	V
MMSZ4683	CJ	2.85	3	3.15	50	0.8	1
MMSZ4684	CK	3.135	3.3	3.465	50	7.5	1.5
MMSZ4685	CM	3.42	3.6	3.78	50	7.5	2
MMSZ4686	CN	3.705	3.9	4.095	50	5	2
MMSZ4687	CP	4.085	4.3	4.515	50	4	2
MMSZ4688	CT	4.465	4.7	4.935	50	10	3
MMSZ4689	CU	4.845	5.1	5.355	50	10	3
MMSZ4690	CV	5.32	5.6	5.88	50	10	4
MMSZ4691	CA	5.89	6.2	6.51	50	10	5
MMSZ4692	CX	6.46	6.8	7.14	50	10	5.1
MMSZ4693	CY	7.125	7.5	7.875	50	10	5.7
MMSZ4694	CZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695	DC	8.265	8.7	9.135	50	1	6.6
MMSZ4696	DD	8.645	9.1	9.555	50	1	6.9
MMSZ4697	DE	9.5	10	10.5	50	1	7.6
MMSZ4698	DF	10.45	11	11.55	50	1	8.4
MMSZ4699	DH	11.4	12	12.6	50	1	9.1
MMSZ4700	DJ	12.35	13	13.65	50	1	9.8
MMSZ4701	DK	13.3	14	14.7	50	1	10.6
MMSZ4702	DM	14.25	15	15.75	50	1	11.4



Part Number	Marking Code	Zener Voltage $V_Z@I_{ZT}$ (V)			Test Current $I_{ZT}$ ( $\mu$ A)	Leakage Current $I_R@V_R$	
		Min	Nom	Max		$\mu$ A	V
MMSZ4703	DN	15.2	16	16.8	50	1	12.1
MMSZ4704	DP	16.15	17	17.85	50	1	12.9
MMSZ4705	DT	17.1	18	18.9	50	1	13.6
MMSZ4706	DU	18.05	19	19.95	50	1	14.4
MMSZ4707	DV	19	20	21	50	0.01	15.2
MMSZ4708	DA	20.9	22	23.1	50	0.01	16.7
MMSZ4709	DX	22.8	24	25.2	50	0.01	18.2
MMSZ4710	DY	23.75	25	26.25	50	0.01	19
MMSZ4711	EA	25.65	27	28.35	50	0.01	20.4
MMSZ4712	EC	26.6	28	29.4	50	0.01	21.2
MMSZ4713	ED	28.5	30	31.5	50	0.01	22.8
MMSZ4714	EE	31.35	33	34.65	50	0.01	25
MMSZ4715	EF	34.2	36	37.8	50	0.01	27.3
MMSZ4716	EH	37.05	39	40.95	50	0.01	29.6

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