

MMSZ4685-MMSZ4717

SILICON PLANAR ZENER DIODES

Features

- RoHS compliant package

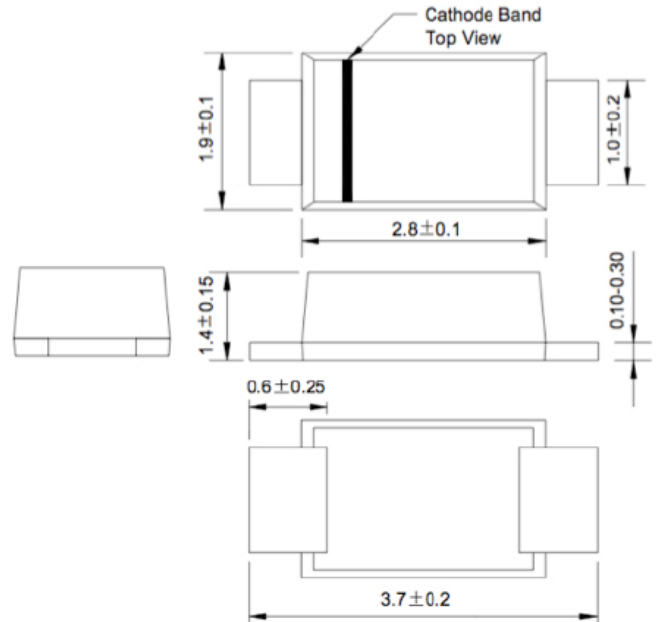
Packing & Order Information

3,000/Reel

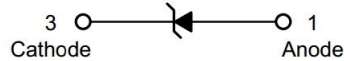
SOD-123FL



RoHS
COMPLIANT



Graphic symbol



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings and Thermal Characteristics (Ta=25°C)

Symbol	Parameter	Value	Unit
*P _{tot}	Power Dissipation at TL=75°C	500	mW
T _J	Junction Temperature Range	150	°C
T _{stg}	Storage Temperature Range	-65 to +150	°C

*FR-4 or FR5 board with minimum recommended solder pad layout

Maximum Ratings and Thermal Characteristics (Ta=25°C)

Symbol	Parameter	Value	Unit
*R _{th(j-a)}	Thermal Resistance Junction to Ambient Air	340	°C/W

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ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

Type	Zener Voltage VZ (V) at IZT=50mA			Max Reverse Leakage Current	Test Voltage	Marking Code
	Nom	Min	Max	IR	VR	
	V	V	V	µA	V	
MMSZ4685	3.6	3.42	3.78	7.5	2.0	CM
MMSZ4686	3.9	3.71	4.10	5.0	2.0	CN
MMSZ4687	4.3	4.09	4.52	4.0	2.0	CP
MMSZ4688	4.7	4.47	4.94	10	3.0	CT
MMSZ4689	5.1	4.85	5.36	10	3.0	CU
MMSZ4690	5.6	5.32	5.88	10	4.0	CV
MMSZ4691	6.2	5.89	6.51	10	5.0	CA
MMSZ4692	6.8	6.46	7.14	10	5.1	CX
MMSZ4693	7.5	7.13	7.88	10	5.7	CY
MMSZ4694	8.2	7.79	8.61	1.0	6.2	CZ
MMSZ4695	8.7	8.27	9.14	1.0	6.6	D
MMSZ4696	9.1	8.65	9.56	1.0	6.9	D
MMSZ4697	10	9.50	10.50	1.0	7.6	DE
MMSZ4698	11	10.50	11.60	0.05	8.4	DF
MMSZ4699	12	11.40	12.60	0.05	9.1	DH
MMSZ4700	13	12.40	13.70	0.05	9.8	DJ
MMSZ4701	14	13.30	14.70	0.05	10.6	DK
MMSZ4702	15	14.30	15.80	0.05	11.4	DM
MMSZ4703	16	15.20	16.80	0.05	12.1	DN
MMSZ4704	17	16.20	17.90	0.05	12.9	DP
MMSZ4705	18	17.10	18.90	0.05	13.6	DT
MMSZ4706	19	18.11	20.00	0.05	14.4	DU
MMSZ4707	20	19.00	21.00	0.01	15.2	DV
MMSZ4708	22	20.90	23.10	0.01	16.7	DA
MMSZ4709	24	22.80	25.20	0.01	18.2	DZ
MMSZ4710	25	23.80	26.30	0.01	19.0	DY
MMSZ4711	27	25.70	28.40	0.01	20.4	EA
MMSZ4712	28	26.60	29.40	0.01	21.2	EC
MMSZ4713	30	28.50	31.50	0.01	22.8	ED
MMSZ4714	33	31.40	34.70	0.01	25.0	EE
MMSZ4715	36	34.20	37.80	0.01	27.3	EF

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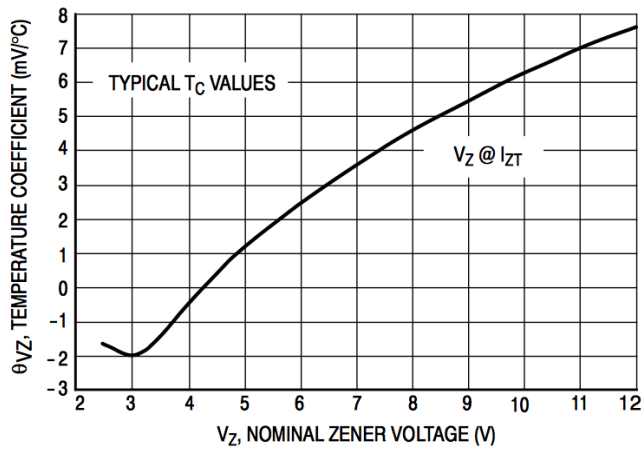
Type	Zener VoltageVZ (V) at IZT=50mA			Max Reverse LeakageCurrent	Test Voltage	Marking Code
	Nom	Min	Max	IR	VR	
	V	V	V	μA	V	
MMSZ4716	39	37.10	41.00	0.01	29.6	EH
MMSZ4717	43	40.90	45.20	0.01	32.6	EJ

Notes :

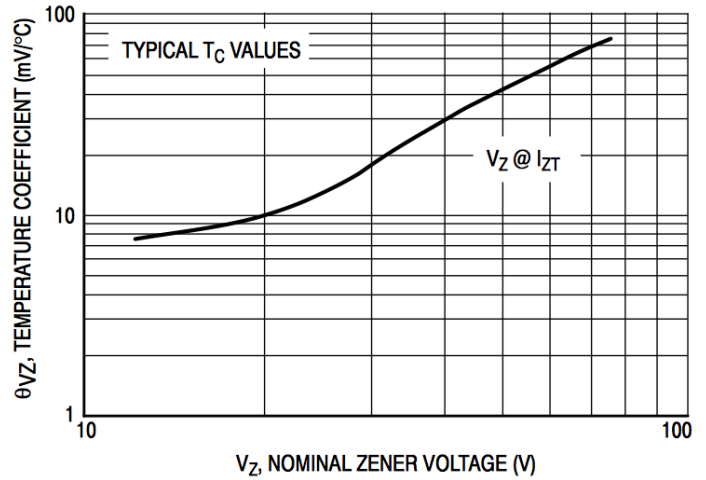
- (1) Vz is tested with pulses (20 ms).
- (2) Zz is measured at Iz by given a very small A.C. current signal.

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**Figure 1. Temperature Coefficients
(Temperature Range -55°C to +150°C)**



**Figure 2. Temperature Coefficients
(Temperature Range -55°C to +150°C)**

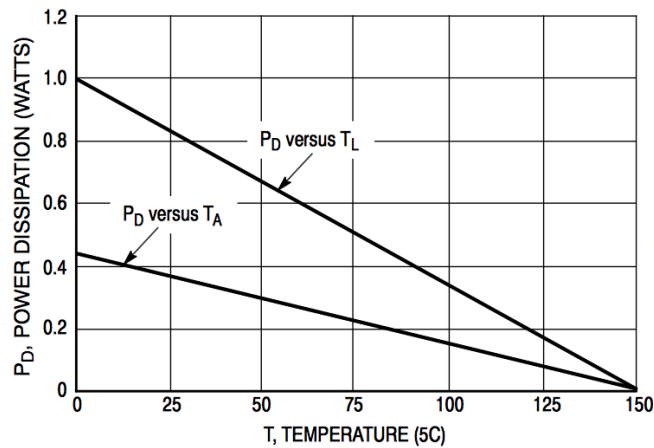


Figure 3. Steady State Power Derating

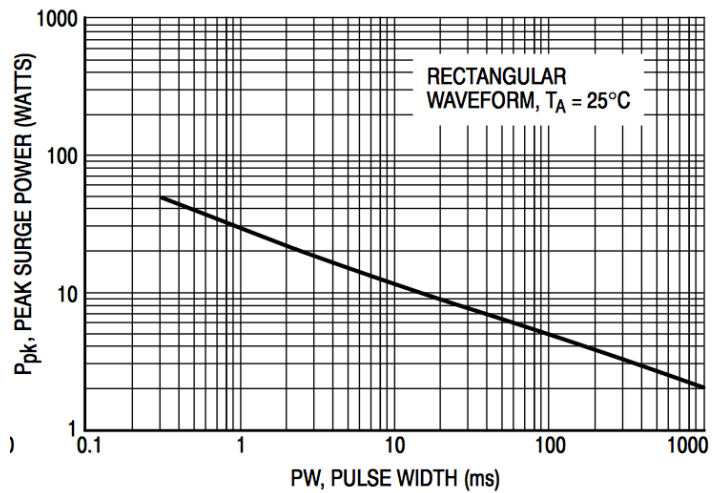
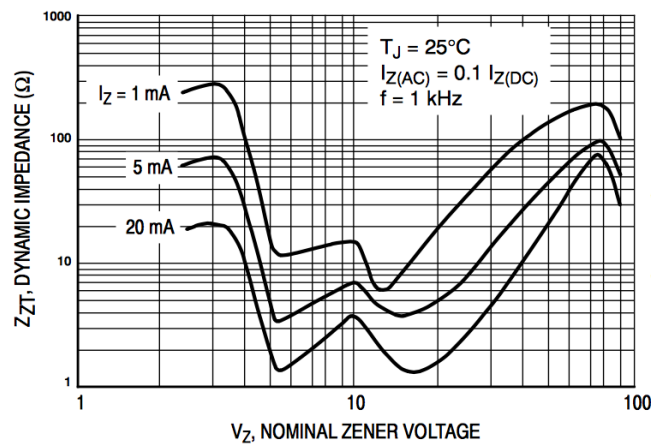


Figure 4. Maximum Nonrepetitive Surge Power



**Figure 5. Effect of Zener Voltage on
Zener Impedance**

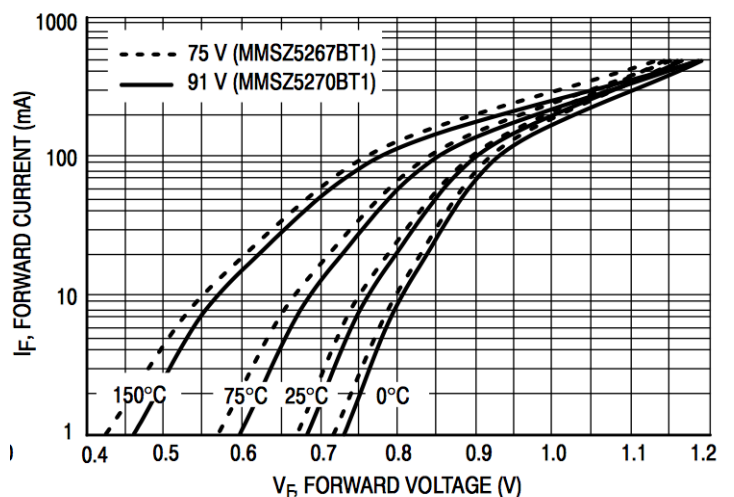


Figure 6. Typical Forward Voltage

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