

# MMS Z4685-MMS Z4717

## SILICON PLANAR ZENER DIODES

### Features

- RoHS compliant package

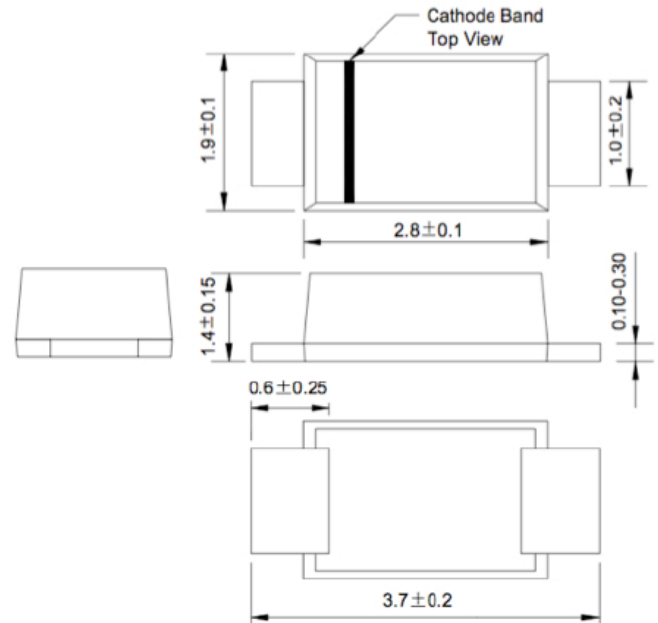
### Packing & Order Information

3,000/Reel

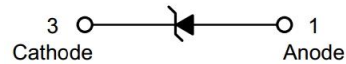


**RoHS**  
COMPLIANT

### SOD-123FL



### Graphic symbol



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	Value	Unit
*P <sub>tot</sub>	Power Dissipation at TL=75°C	500	mW
T <sub>J</sub>	Junction Temperature Range	150	°C
T <sub>stg</sub>	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 <sub>th(j-a)</sub>	Thermal Resistance Junction to Ambient Air	340	°C/W

## MMS Z4685-MMS Z4717

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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	
MMS Z4685	3.6	3.42	3.78	7.5	2.0	CM
MMS Z4686	3.9	3.71	4.10	5.0	2.0	CN
MMS Z4687	4.3	4.09	4.52	4.0	2.0	CP
MMS Z4688	4.7	4.47	4.94	10	3.0	CT
MMS Z4689	5.1	4.85	5.36	10	3.0	CU
MMS Z4690	5.6	5.32	5.88	10	4.0	CV
MMS Z4691	6.2	5.89	6.51	10	5.0	CA
MMS Z4692	6.8	6.46	7.14	10	5.1	CX
MMS Z4693	7.5	7.13	7.88	10	5.7	CY
MMS Z4694	8.2	7.79	8.61	1.0	6.2	CZ
MMS Z4695	8.7	8.27	9.14	1.0	6.6	D
MMS Z4696	9.1	8.65	9.56	1.0	6.9	D
MMS Z4697	10	9.50	10.50	1.0	7.6	DE
MMS Z4698	11	10.50	11.60	0.05	8.4	DF
MMS Z4699	12	11.40	12.60	0.05	9.1	DH
MMS Z4700	13	12.40	13.70	0.05	9.8	DJ
MMS Z4701	14	13.30	14.70	0.05	10.6	DK
MMS Z4702	15	14.30	15.80	0.05	11.4	DM
MMS Z4703	16	15.20	16.80	0.05	12.1	DN
MMS Z4704	17	16.20	17.90	0.05	12.9	DP
MMS Z4705	18	17.10	18.90	0.05	13.6	DT
MMS Z4706	19	18.11	20.00	0.05	14.4	DU
MMS Z4707	20	19.00	21.00	0.01	15.2	DV
MMS Z4708	22	20.90	23.10	0.01	16.7	DA
MMS Z4709	24	22.80	25.20	0.01	18.2	DZ
MMS Z4710	25	23.80	26.30	0.01	19.0	DY
MMS Z4711	27	25.70	28.40	0.01	20.4	EA
MMS Z4712	28	26.60	29.40	0.01	21.2	EC
MMS Z4713	30	28.50	31.50	0.01	22.8	ED
MMS Z4714	33	31.40	34.70	0.01	25.0	EE
MMS Z4715	36	34.20	37.80	0.01	27.3	EF

## MMSZ4685-MMSZ4717

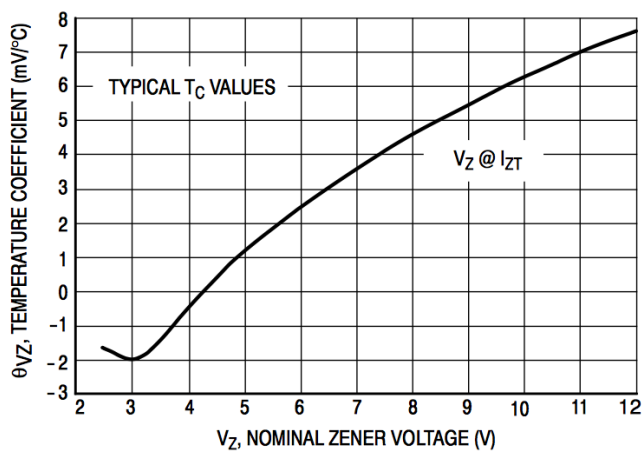
### SILICON PLANAR ZENER DIODES

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

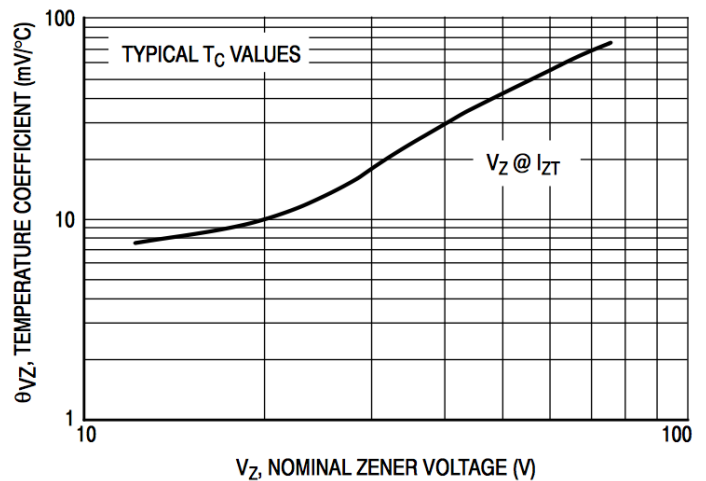
Type	Zener Voltage VZ (V) at IZT=50mA			Max Reverse Leakage Current	Test Voltage	Marking Code
	Nom	Min	Max	IR	VR	
	V	V	V	μA	V	
MMSZ4716	39	37.10	41.00	0.01	29.6	EH
MMSZ4717	43	40.90	45.20	0.01	32.6	EJ

Notes :

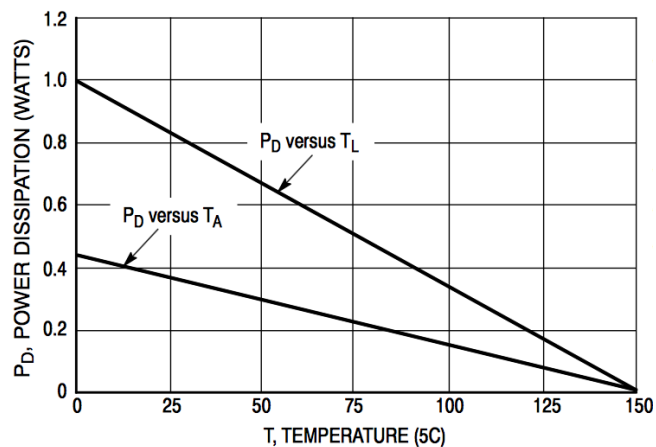
- (1) Vz is tested with pulses (20 ms).
- (2) Zz is measured at Iz by given a very small A.C. current signal.



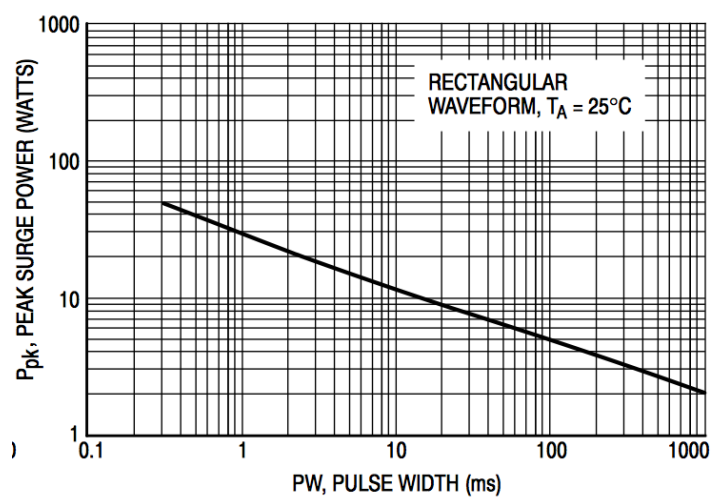
**Figure 1. Temperature Coefficients  
(Temperature Range -55°C to +150°C)**



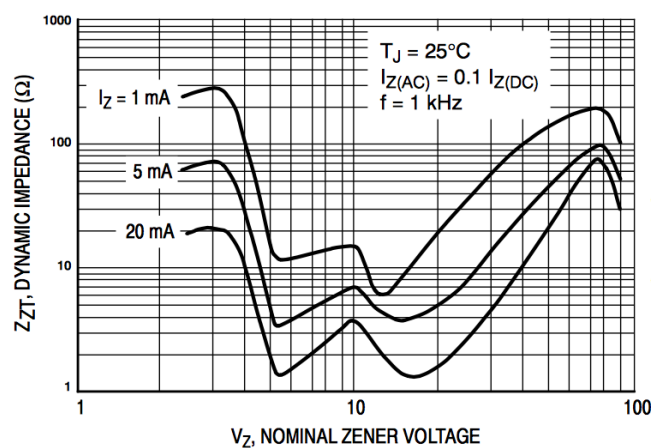
**Figure 2. Temperature Coefficients  
(Temperature Range -55°C to +150°C)**



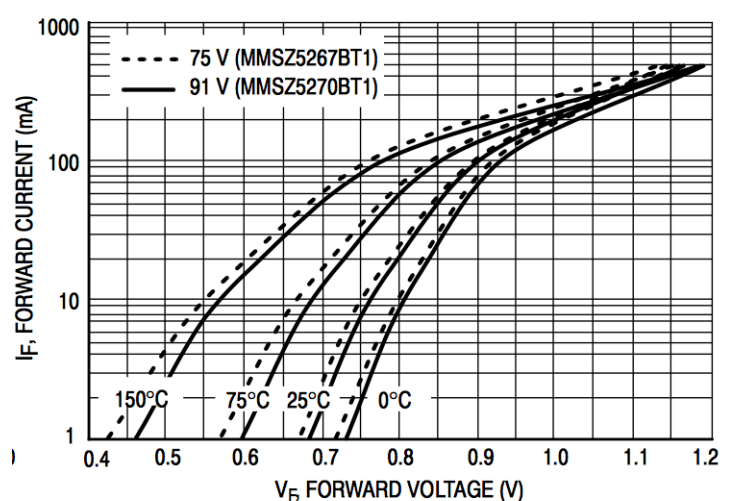
**Figure 3. Steady State Power Derating**



**Figure 4. Maximum Nonrepetitive Surge Power**



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



**Figure 6. Typical Forward Voltage**

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#### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

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