



Micro Commercial Components

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MMSZ4685 THRU MMSZ4701

500mW Silicon Zener Diodes

Features

- Small package size for high density applications
- V_Z – tolerance $\pm 5\%$
- High Reliability
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant See ordering information)

Mechanical Data

- Polarity: Cathode indicated by polarity band
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

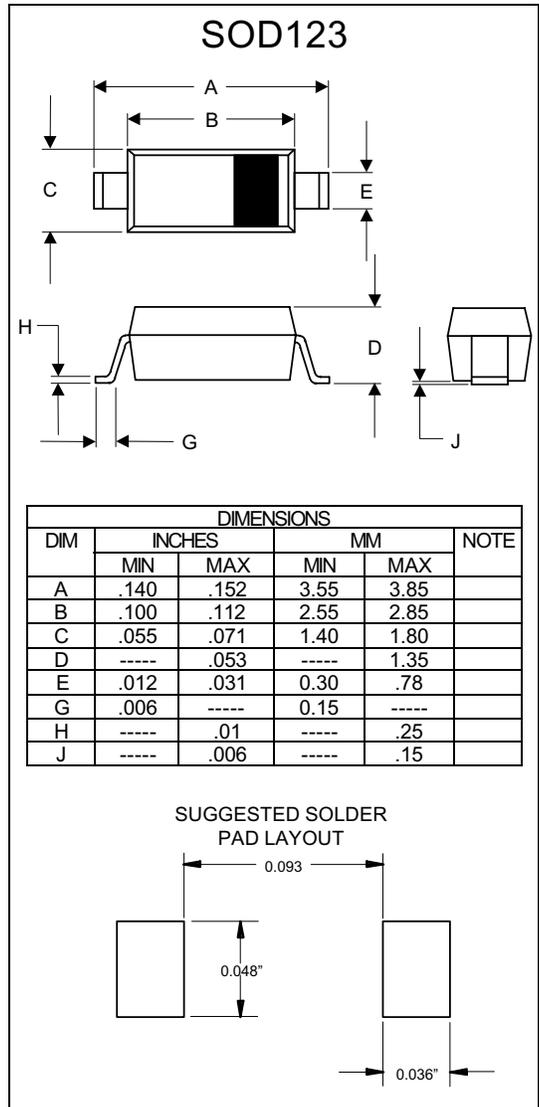
	Symbol	Value	Units
Max. Steady State Power Dissipation at $T_L < 75^\circ\text{C}$, Lead Length=3/8"	P_D	500	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^\circ\text{C}$
Thermal Resistance(Junction to Ambient)	R_{thJA}	340	K/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Max. Forward Voltage @ $I_F=10\text{mA}$	V_F	0.9	V

NOTE:

- 1) Some part number series have lower JEDEC registered ratings.



MMSZ4685 thru MMSZ4701



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Electrical Characteristics (T_i= 30°C Unless Otherwise Noted, V_F=0.95V Max @ I_F=10mA for all types)

Device	Zener Voltage				Leakage Current		Device Marking
	V _Z (Volts)			@ I _{ZT}	I _R @ V _R		
	Min	Nom	Max	u A	u A	Volts	
MMSZ4685	3.42	3.6	3.78	50	7.5	2.0	CM
MMSZ4686	3.70	3.9	4.10	50	5.0	2.0	CN
MMSZ4689	4.85	5.1	5.36	50	10	3.0	CU
MMSZ4692	6.46	6.8	7.14	50	10	5.1	CX
MMSZ4693	7.13	7.5	7.88	50	10	5.7	CY
MMSZ4701	13.30	14	14.7	50	0.05	10.6	DK

MMSZ4685 thru MMSZ4701

TYPICAL CHARACTERISTICS

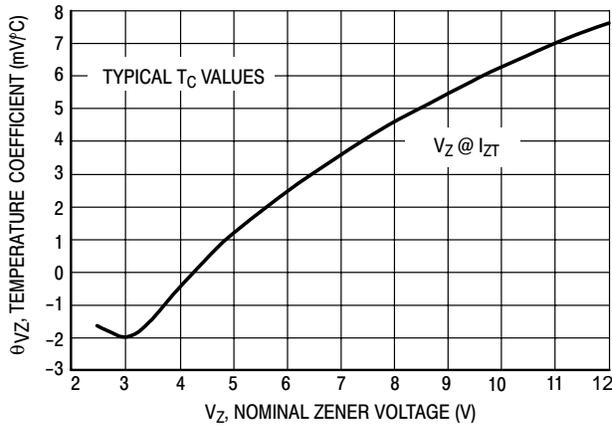


Figure 1. Temperature Coefficients (Temperature Range -55°C to +150°C)

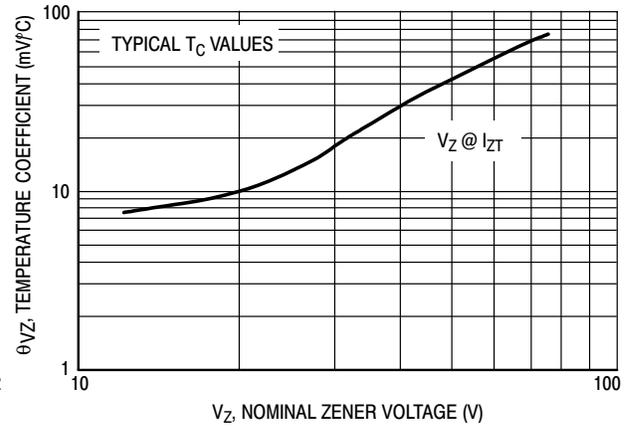


Figure 2. Temperature Coefficients (Temperature Range -55°C to +150°C)

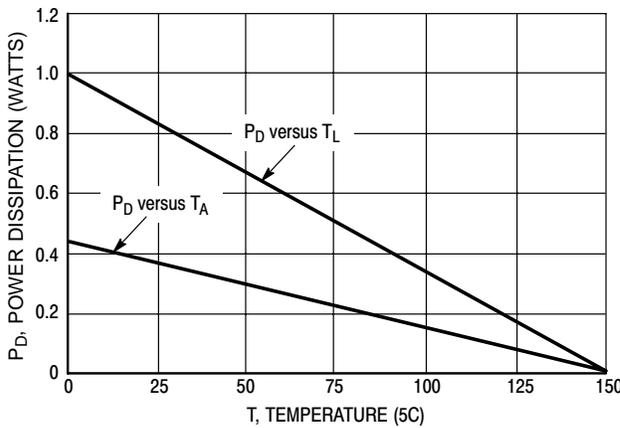


Figure 3. Steady State Power Derating

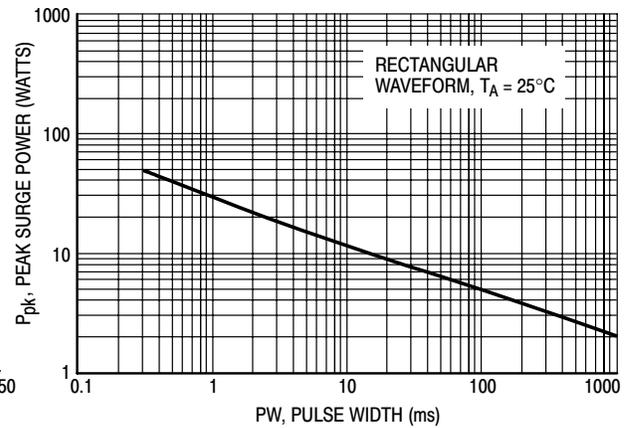


Figure 4. Maximum Nonrepetitive Surge Power

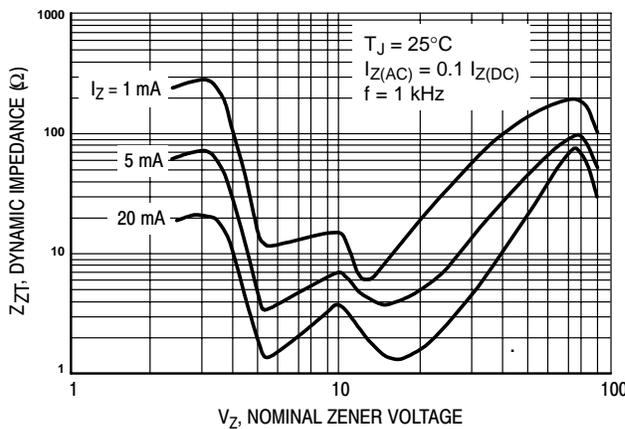


Figure 5. Effect of Zener Voltage on Zener Impedance

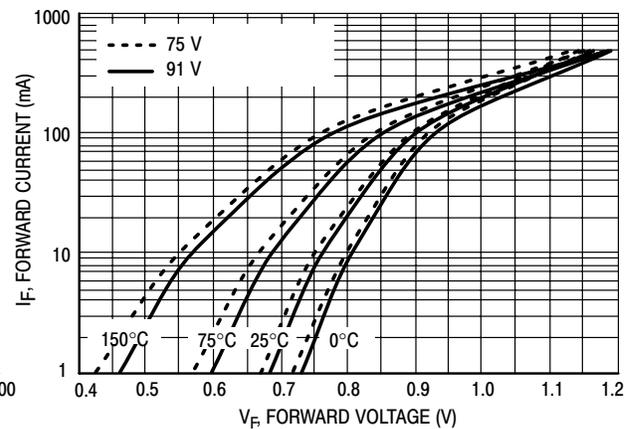


Figure 6. Typical Forward Voltage

TYPICAL CHARACTERISTICS

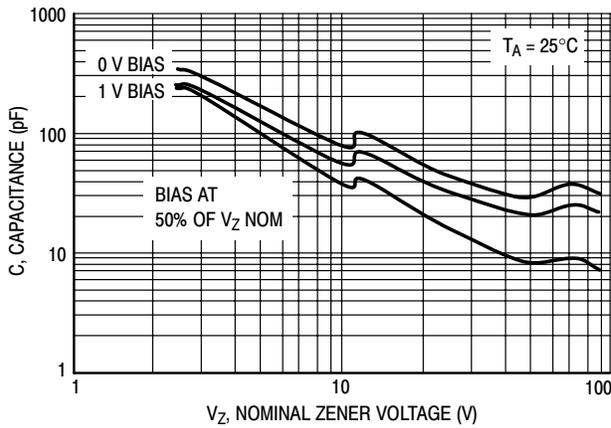


Figure 7. Typical Capacitance

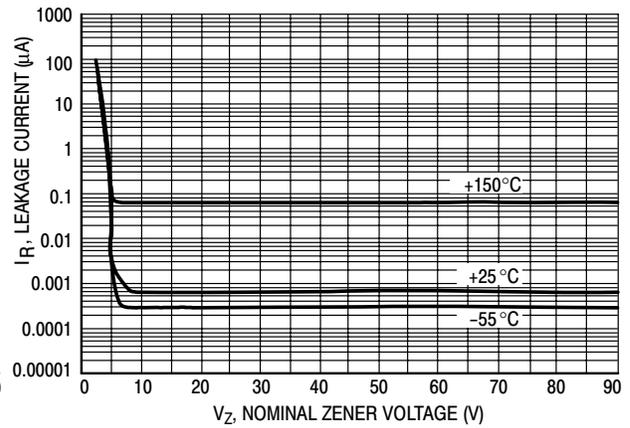
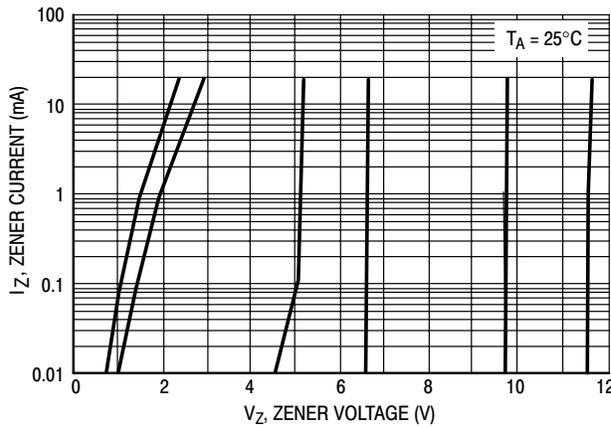
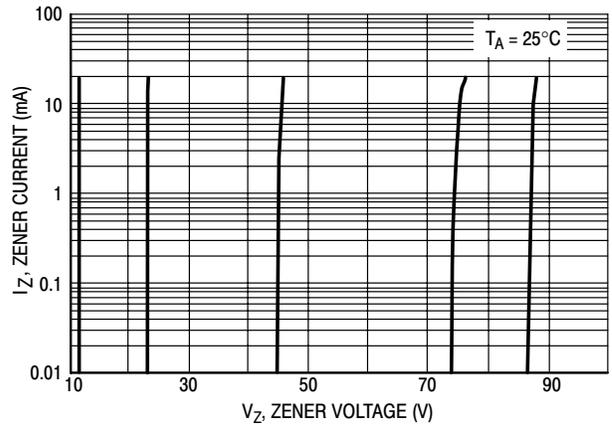


Figure 8. Typical Leakage Current



**Figure 9. Zener Voltage versus Zener Current
(V_Z Up to 12 V)**



**Figure 10. Zener Voltage versus Zener Current
(12 V to 91 V)**



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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

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