



Micro Commercial Components

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MMSZ4678FL THRU MMSZ4713FL

500mW Silicon Zener Diodes

Features

- # Zener Voltage 1.8V-30V
- # Very Sharp Reverse Characteristic
- # VZ – tolerance $\pm 5\%$
- # High Reliability

Mechanical Data

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

Maximum Ratings

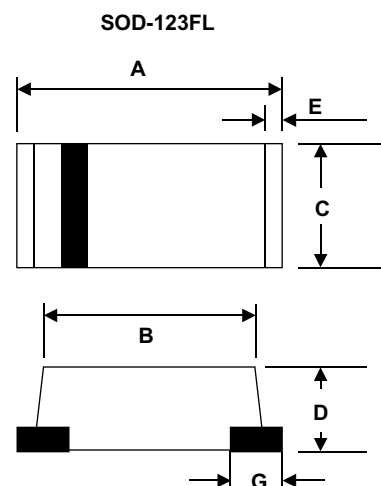
	Symbol	Value	Units
Max. Steady State Power Dissipation at $T_L < 75^\circ\text{C}$, Lead Length=3/8"	P_D	500	mW
Junction Temperature	T_J	150	
Storage Temperature Range	T_{STG}	-55 to 150	
Thermal Resistance(Junction to Ambient)	R_{thJA}	340	K/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Max. Forward Voltage @ $I_F=10\text{mA}$	V_F	0.95	V

NOTE:

- Some part number series have lower JEDEC registered ratings.



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.146	.161	3.70	4.10	
B	.110	.126	2.80	3.20	
C	.059	.075	1.50	1.90	
D	.051	.067	1.30	1.70	
E	.012(Typ.)		.30(Typ.)		
G	.036(Typ.)		.90(Typ.)		

MMSZ4678FL thru MMSZ4713FL

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	uA	uA Max	Volts	
MMSZ4678FL	1.71	1.8	1.89	50	7.5	1.0	CC
MMSZ4679FL	1.90	2.0	2.10	50	5.0	1.0	CD
MMSZ4680FL	2.09	2.2	2.31	50	5.0	1.0	CE
MMSZ4681FL	2.28	2.4	2.52	50	2.0	1.0	CF
MMSZ4682FL	2.565	2.7	2.835	50	1.0	1.0	CH
MMSZ4683FL	2.85	3.0	3.15	50	0.8	1.0	CJ
MMSZ4684FL	3.135	3.3	3.465	50	7.5	1.5	CK
MMSZ4685FL	3.42	3.6	3.78	50	7.5	2.0	CM
MMSZ4686FL	3.705	3.9	4.095	50	5.0	2.0	CN
MMSZ4687FL	4.085	4.3	4.515	50	4.0	2.0	CP
MMSZ4688FL	4.465	4.7	4.935	50	10	3.0	CT
MMSZ4689FL	4.845	5.1	5.355	50	10	3.0	CU
MMSZ4690FL	5.32	5.6	5.88	50	10	4.0	CV
MMSZ4691FL	5.89	6.2	6.51	50	10	5.0	CA
MMSZ4692FL	6.46	6.8	7.14	50	10	5.1	CX
MMSZ4693FL	7.125	7.5	7.875	50	10	5.7	CY
MMSZ4694FL	7.79	8.2	8.61	50	1.0	6.2	CZ
MMSZ4695FL	8.265	8.7	9.135	50	1.0	6.6	DC
MMSZ4696FL	8.645	9.1	9.555	50	1.0	6.9	DD
MMSZ4697FL	9.50	10	10.5	50	1.0	7.6	DE
MMSZ4698FL	10.45	11	11.55	50	0.05	8.4	DF
MMSZ4699FL	11.40	12	12.6	50	0.05	9.1	DH
MMSZ4700FL	12.35	13	13.65	50	0.05	9.8	DJ
MMSZ4701FL	13.30	14	14.7	50	0.05	10.6	DK
MMSZ4702FL	14.25	15	15.75	50	0.05	11.4	DM
MMSZ4703FL	15.20	16	16.8	50	0.05	12.1	DN
MMSZ4704FL	16.15	17	17.85	50	0.05	12.9	DP
MMSZ4705FL	17.10	18	18.9	50	0.05	13.6	DT
MMSZ4707FL	19.00	20	21	50	0.01	15.2	DV
MMSZ4711FL	25.65	27	28.35	50	0.01	20.4	EA
MMSZ4713FL	28.5	30	31.5	50	0.01	22.8	ED

TYPICAL CHARACTERISTICS

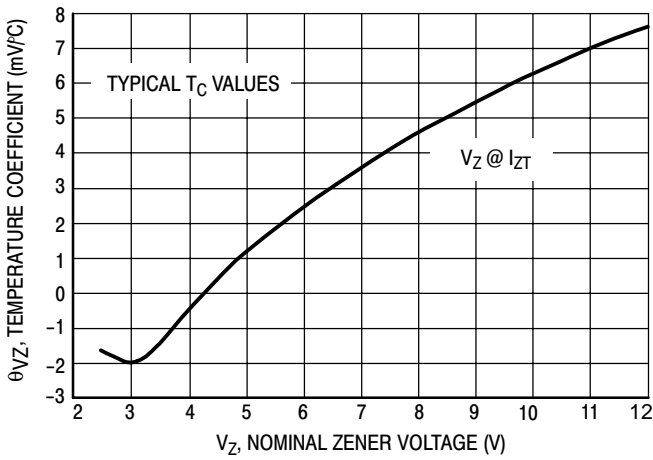


Figure 1. Temperature Coefficients (Temperature Range -55°C to +150°C)

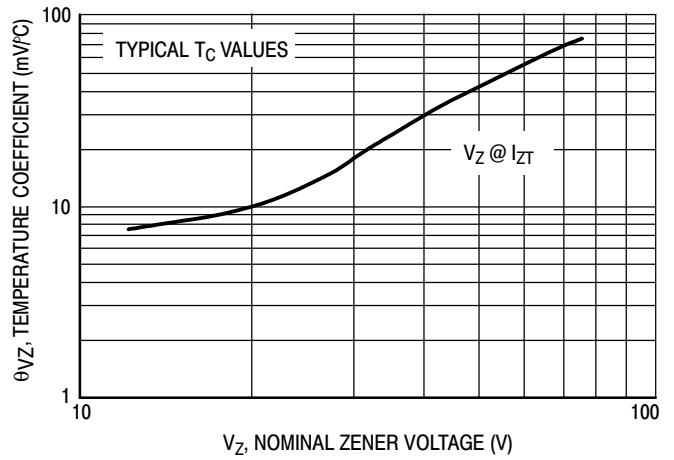


Figure 2. Temperature Coefficients (Temperature Range -55°C to +150°C)

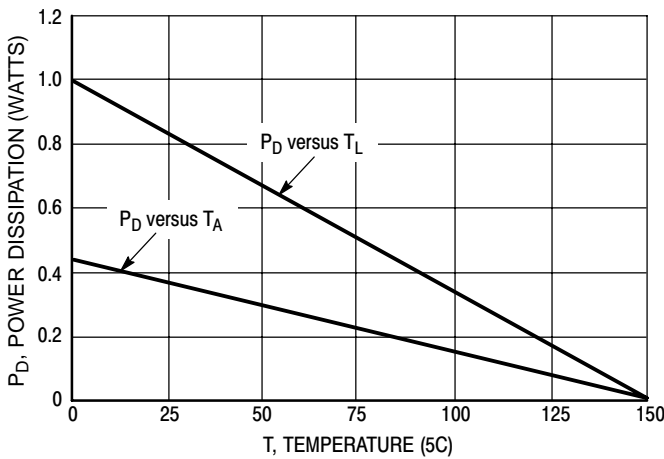


Figure 3. Steady State Power Derating

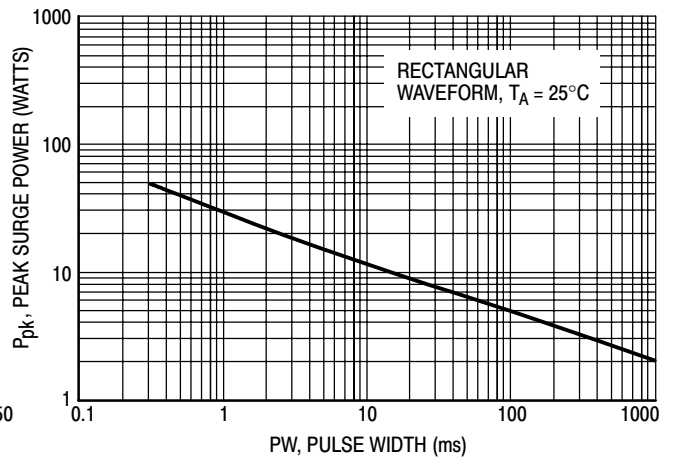


Figure 4. Maximum Nonrepetitive Surge Power

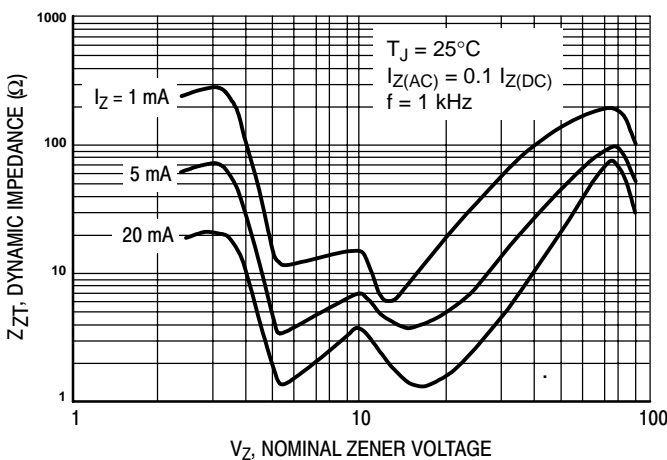


Figure 5. Effect of Zener Voltage on Zener Impedance

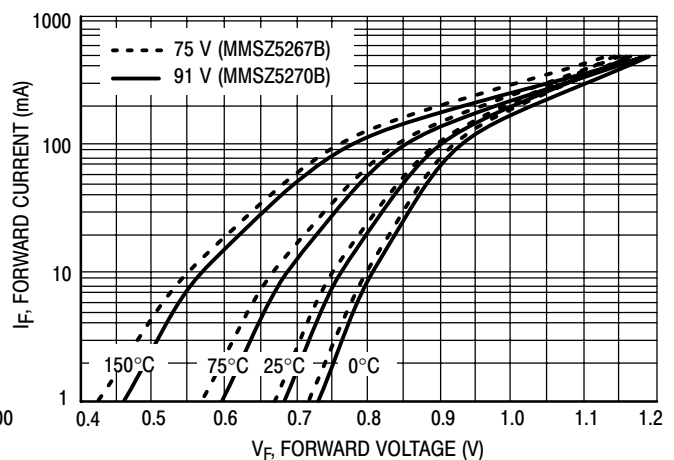


Figure 6. Typical Forward Voltage

TYPICAL CHARACTERISTICS

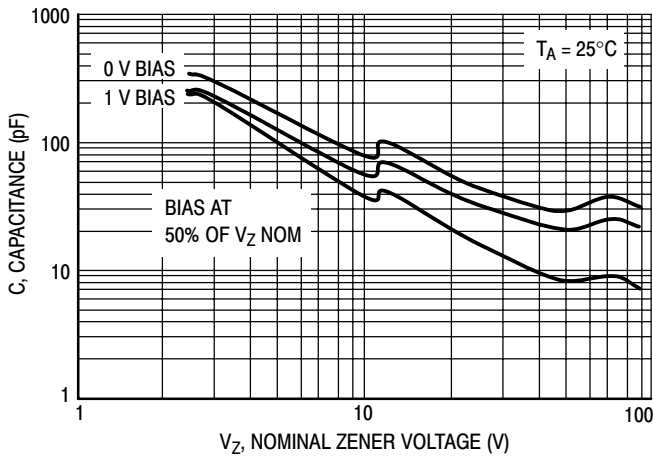


Figure 7. Typical Capacitance

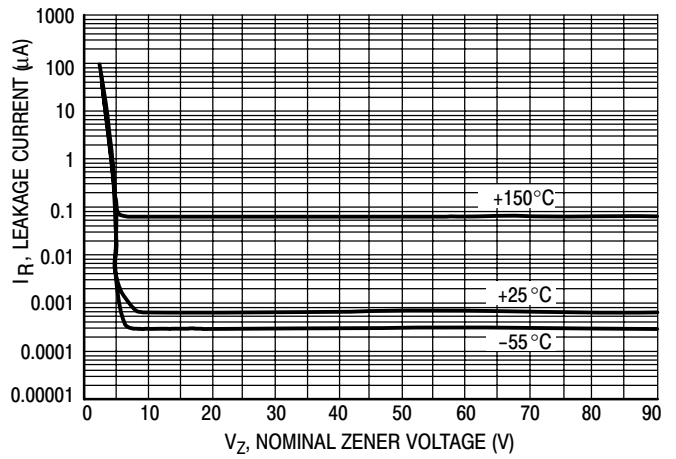


Figure 8. Typical Leakage Current

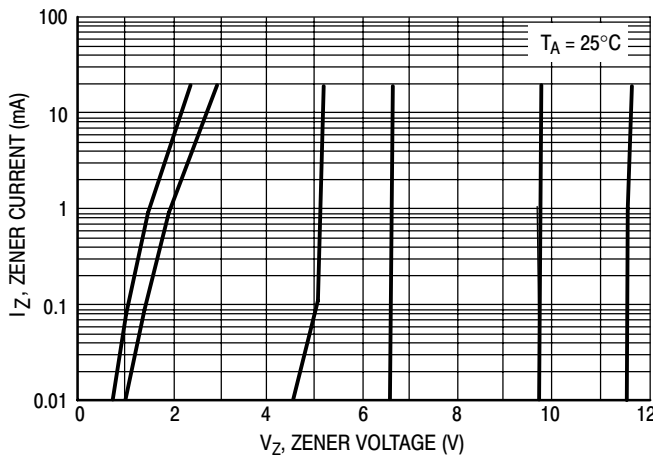


Figure 9. Zener Voltage versus Zener Current (Vz Up to 12 V)

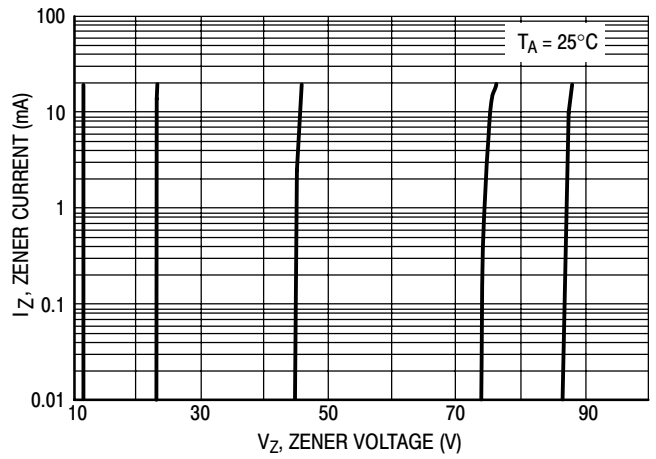


Figure 10. Zener Voltage versus Zener Current (12 V to 91 V)



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