

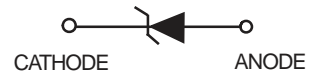


Features

- Standard Zener Breakdown Voltage Range – 2.0 V to 75 V
- Steady State Power Rating of 200 mW
- Small Body Outline Dimensions: 0.047" x 0.032"(1.20 mm x 0.80 mm)
- Low Body Height: 0.028" (0.7 mm)
- ESD Rating of Class 3 (>16 kV) per Human Body Model



SOD-523
(SOD-523F)



Package Marking and Ordering Information

Product ID	Pack	Brand	Qty(PCS)
MM5Z3V0T1G	SOD-523 (SOD-523F)	HXY MOSFET	3000

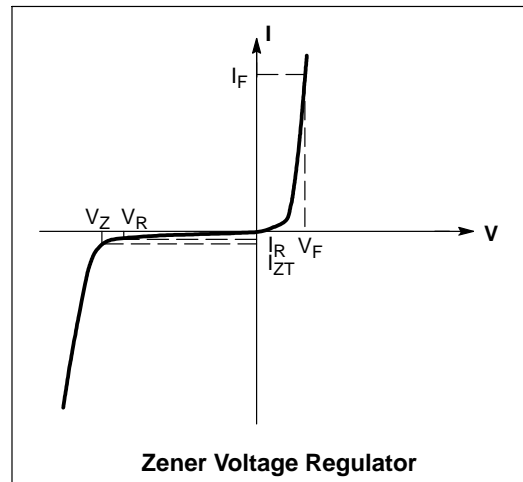
Absolute Maximum Ratings(Ta=25°C)

Rating	Symbol	Max	Unit
Total Device Dissipation FR-5 Board, @ T _A = 25°C	P _D	200	mW
Junction and Storage Temperature Range	T _J , T _{stg}	-65 to +150	°C

Electrical Characteristics

(T_A = 25°C unless otherwise noted,
V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Symbol	Parameter
V _Z	Reverse Zener Voltage @ I _{ZT}
I _{ZT}	Reverse Current
Z _{ZT}	Maximum Zener Impedance @ I _{ZT}
I _{ZK}	Reverse Current
Z _{ZK}	Maximum Zener Impedance @ I _{ZK}
I _R	Reverse Leakage Current @ V _R
V _R	Reverse Voltage
I _F	Forward Current
V _F	Forward Voltage @ I _F
θV _Z	Maximum Temperature Coefficient of V _Z
C	Max. Capacitance @ V _R = 0 and f = 1 MHz



Electrical Characteristics (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Device	Device Marking	Zener Voltage (Note 1)			Zener Impedance			Leakage Current		θV _Z (mV/k) @ I _{ZT}	C @ V _R = 0 f = 1 MHz		
		V _Z (Volts)			Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _R @ V _R						
		Min	Nom	Max	mA	Ω	Ω	μA	Volts	Min	Max	pF	
MM5Z3V0T1G	02	2.8	3.0	3.2	5	100	1000	1.0	10	1.0	-3.5	0	450



Typical Characteristics

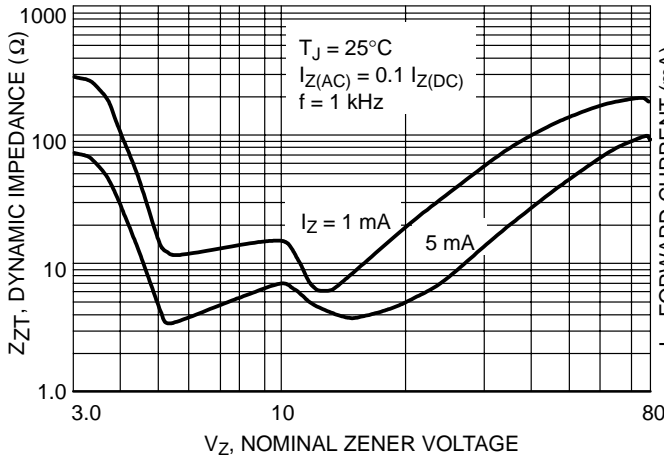


Figure 1. Effect of Zener Voltage on Zener Impedance

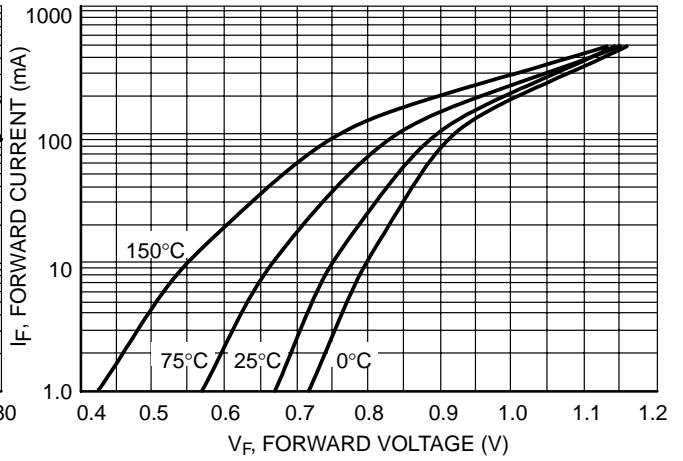


Figure 2. Typical Forward Voltage

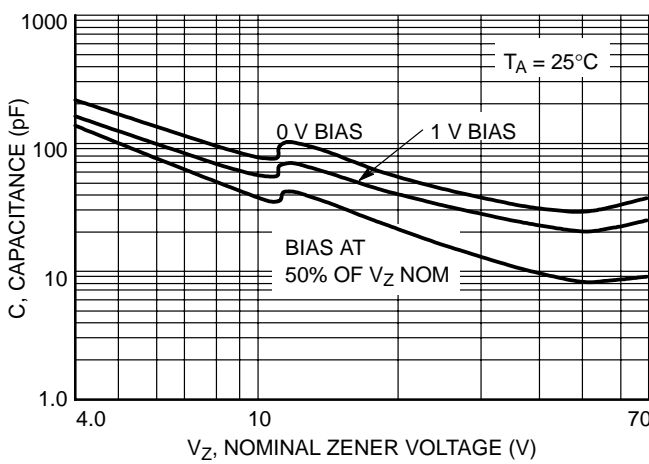


Figure 3. Typical Capacitance

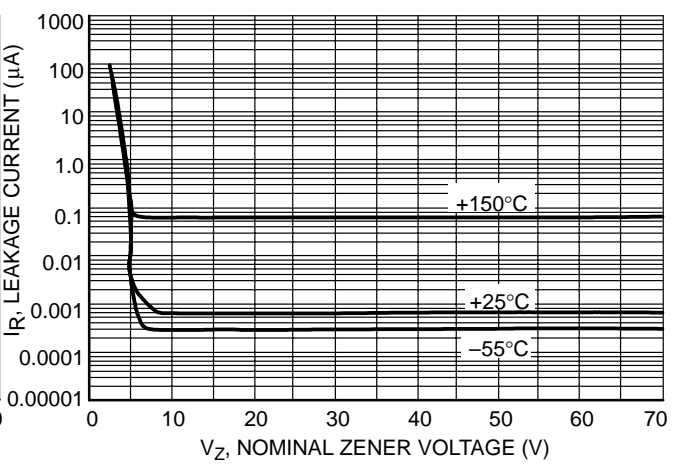


Figure 4. Typical Leakage Current

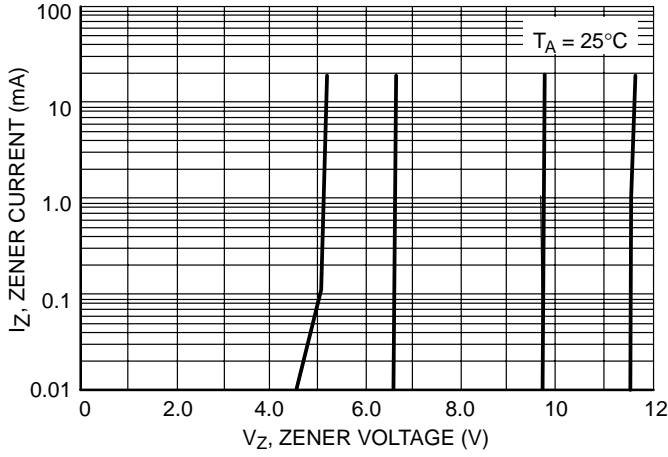


Figure 5. Zener Voltage versus Zener Current
(V_Z Up to 12 V)

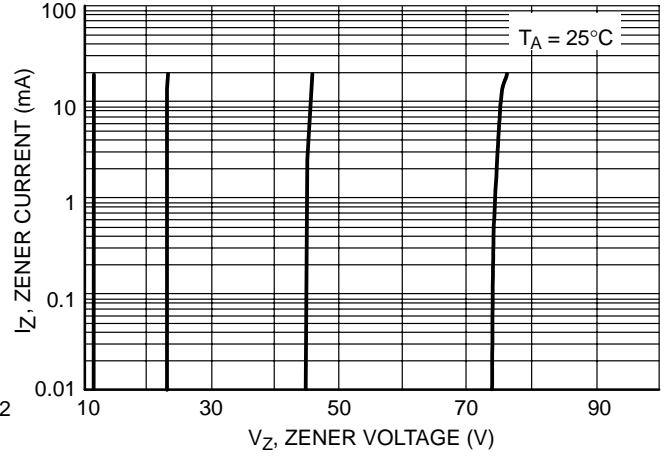


Figure 6. Zener Voltage versus Zener Current
(12 V to 75 V)

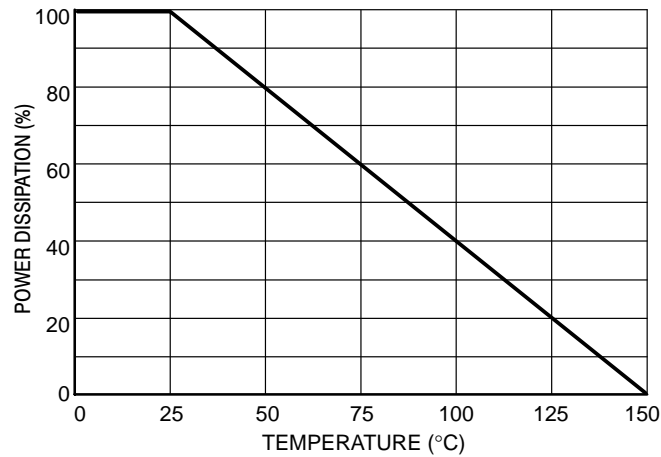
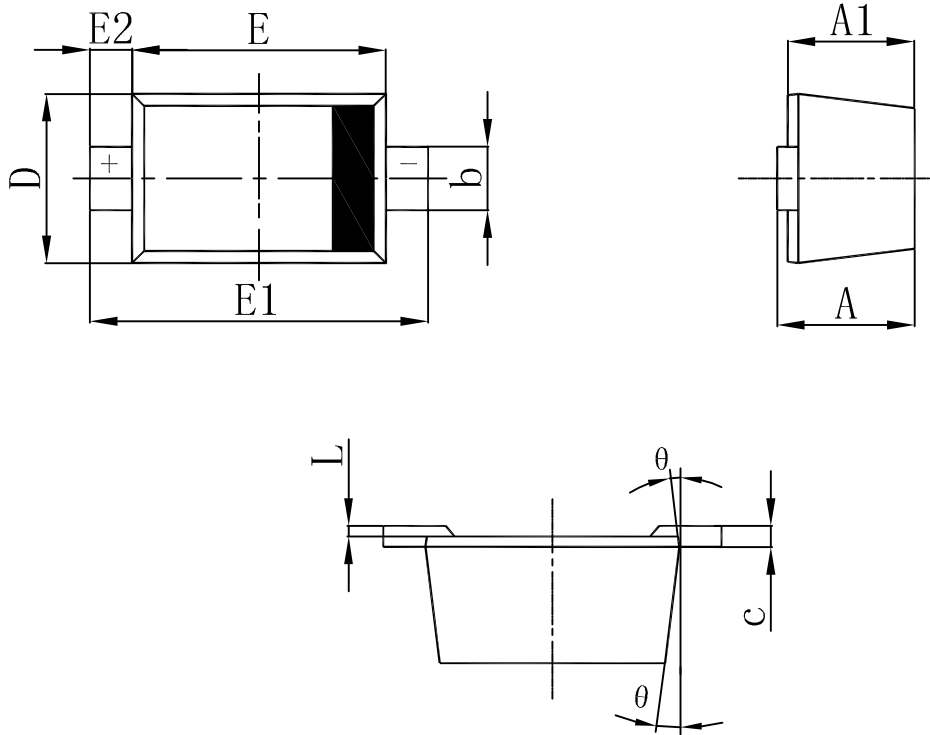


Figure 7. Steady State Power Derating



SOD-523(SOD-523F) Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	



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