



## Features

- Planar Die Construction
- 500mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version



SOD-123

## Package Marking and Ordering Information

Product ID	Pack	Brand	Qty(PCS)
MMSZ5240BT1G	SOD-123	HXY MOSFET	3000



## Absolute Maximum Ratings(Ta=25°C)

Characteristic	Symbol	Value	Unit
Forward voltage @I <sub>F</sub> =10mA	V <sub>F</sub>	0.85	V
Power Dissipation	P <sub>D</sub>	500	mW
Thermal Resistance, Junction to Ambient Air	R <sub>θJA</sub>	556	°C/W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ +150	°C

Notes: Device mounted on ceramic PCB;5.0mm×7.0mm with pad areas 35 mm<sup>2</sup>

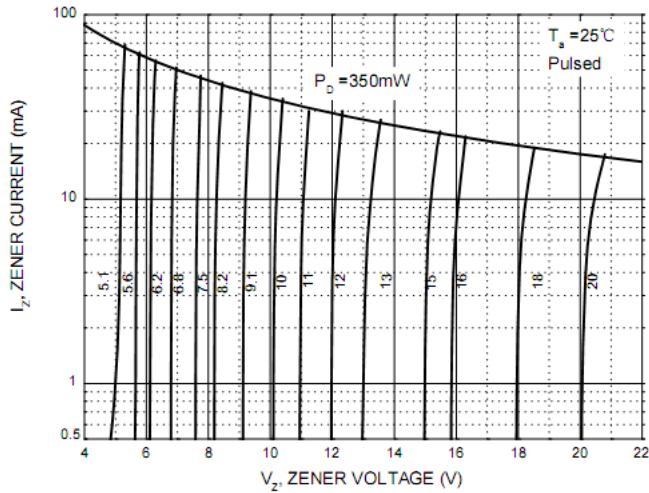
## Electrical Characteristics (Ta=25°C unless otherwise specified)

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current		Typical Temperature Coefficient @I <sub>ZTC</sub> mV/°C		Test Current I <sub>ZTC</sub> mA
		Nom(V)	Min(V)	Max(V)	I <sub>ZT</sub> mA	Z <sub>YT</sub> @I <sub>ZT</sub> Ω	Z <sub>ZK</sub> @I <sub>ZK</sub> Ω	I <sub>ZK</sub> mA	I <sub>R</sub> μA	V <sub>R</sub> V	Min	Max	
MMSZ5240BT1G	F5	10	9.80	10.20	5	19	142.5	1.0	0.2	8.0	4.5	8.0	5

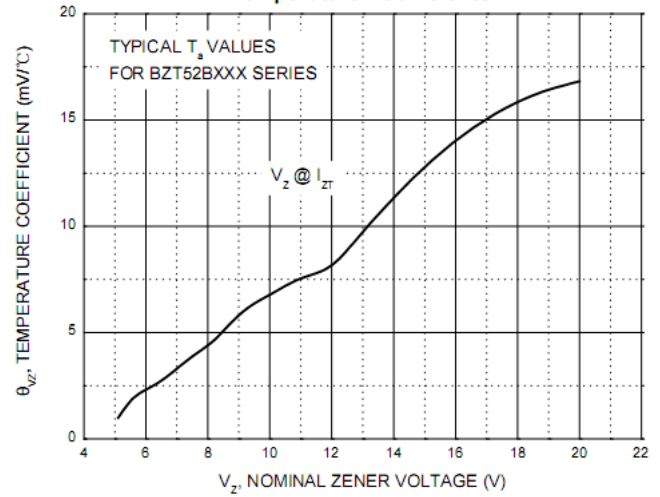


## Typical Characteristics

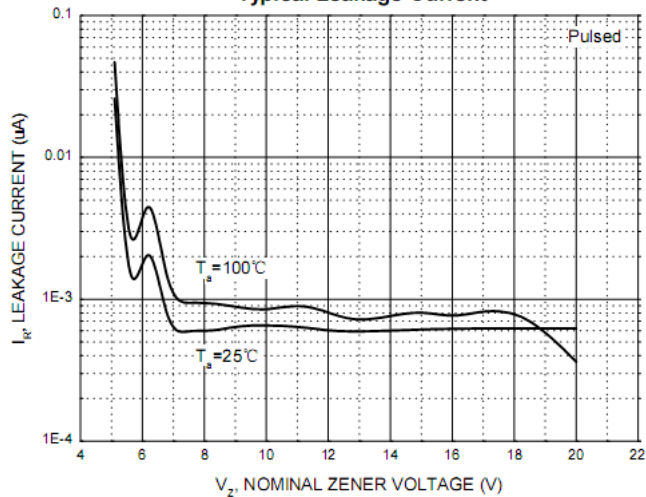
Zener Characteristics ( $V_Z$  5.1V to 20 V)



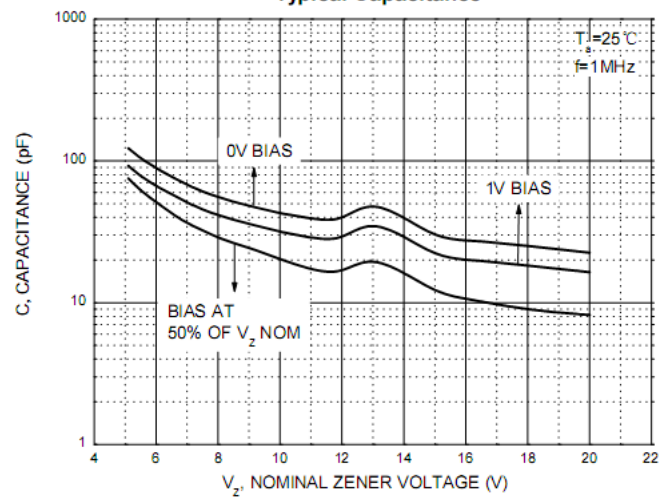
Temperature Coefficients



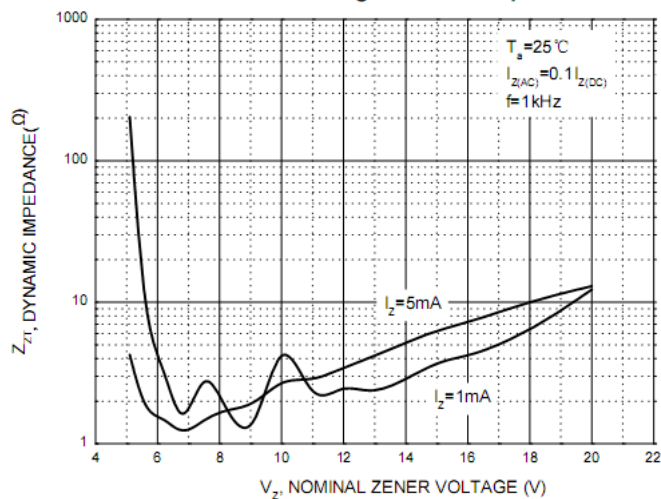
Typical Leakage Current



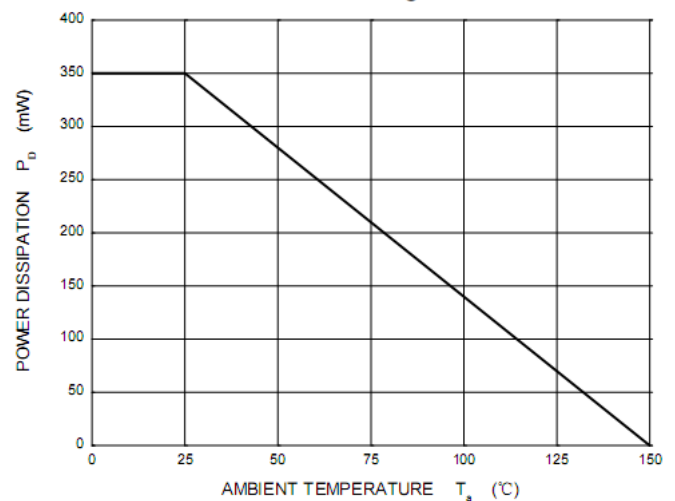
Typical Capacitance



Effect of Zener Voltage on Zener Impedance

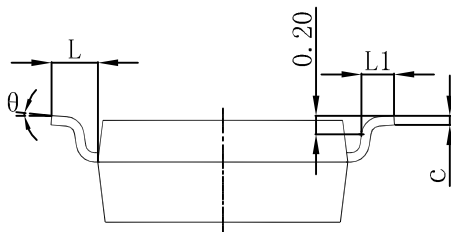
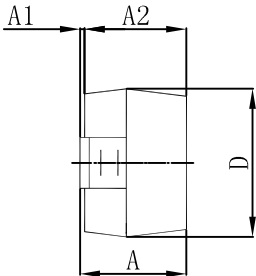
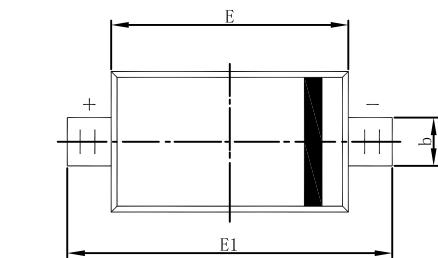


Power Derating Curve

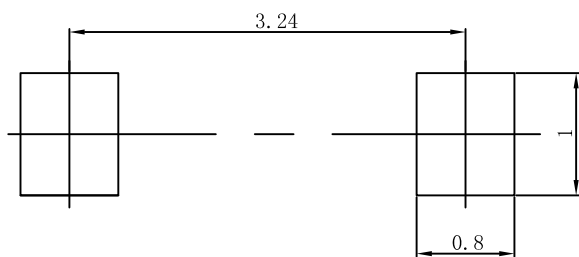




SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°



**Note:**  
1.Controlling dimension:in millimeters.  
2.General tolerance:± 0.05mm.  
3.The pad layout is for reference purposes only.



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