

Surface Mount Zener Diode

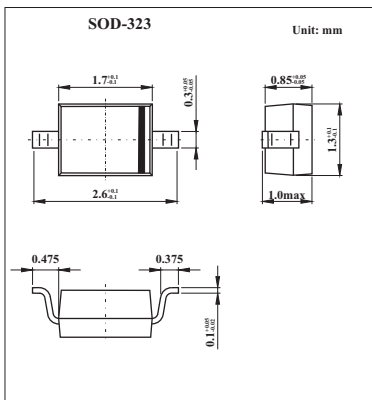
MM3Z24VS

Features

Planar Die Construction

Ultra-Small Surface Mount Package

Ideally Suited for Automated Assembly Processes



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Power Dissipation (Note 1)	P _D	200	mW
Forward Voltage @ I _F = 10mA	V _F	0.9	V
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Note: 1.Part mounted on FR-4 PC board with recommended pad layout.

Electrical Characteristics @Ta=25°C unless otherwise specified

Type Number	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I _{ZT} mV/°C	
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R			
	Min (V)	Nom (V)	Max (V)	mA	Ω		mA	μA	V	Min	Max
MM3Z24VS	22.8	24	25.6	5	70	120	0.5	0.05	16.8	18.4	22

Notes: 2. Short duration test pulse used to minimize self-heating effect.

3. f = 1kHz.

Marking

Marking	2N
---------	----

MM3Z24VS

■ Typical Characteristics

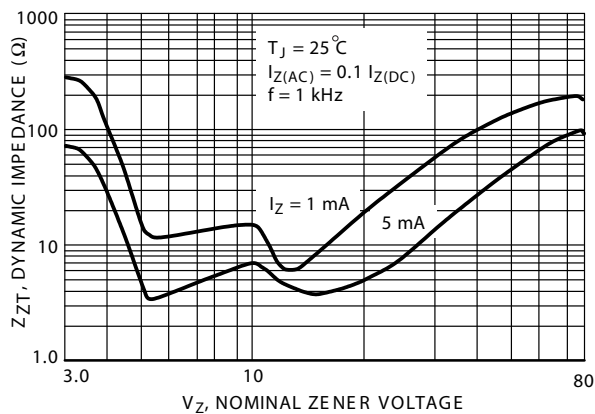


Fig.1 Effect of Zener Voltage on Zener Impedance

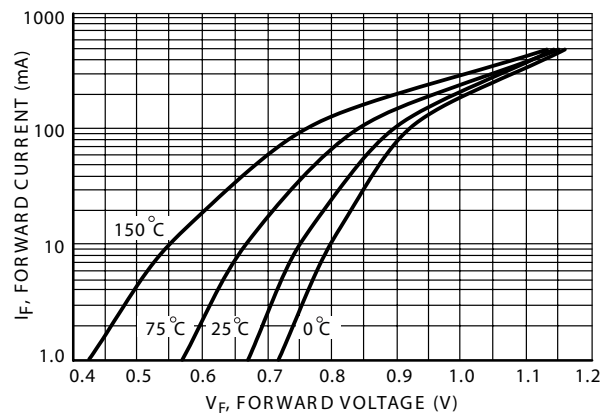


Fig.2 Typical Forward Voltage

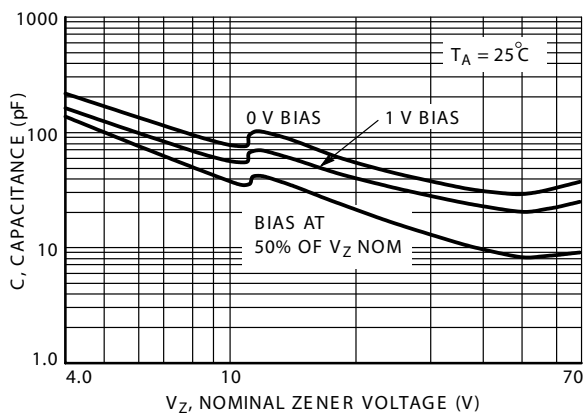


Fig.3 Typical Capacitance

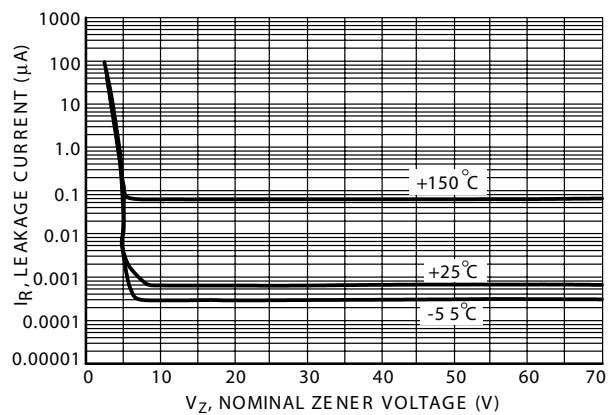


Fig.4 Typical Leakage Current

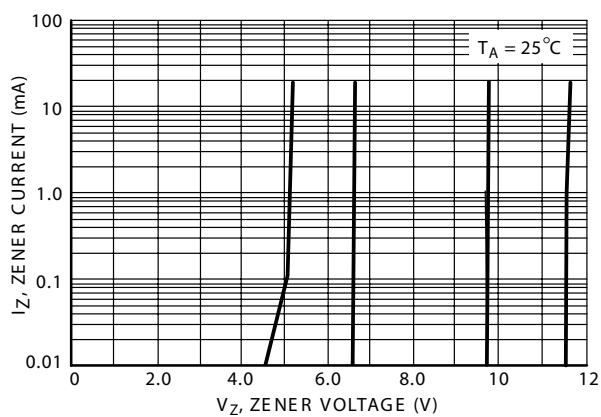
MM3Z24VS

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

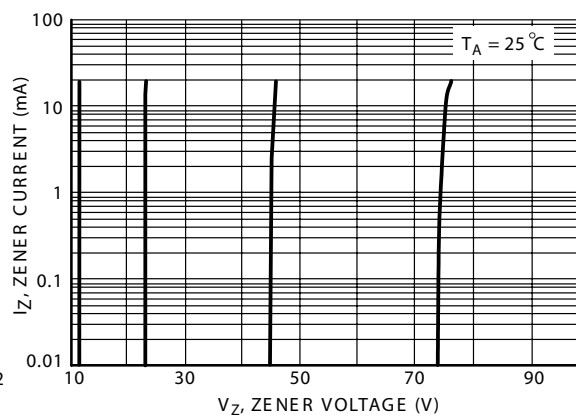
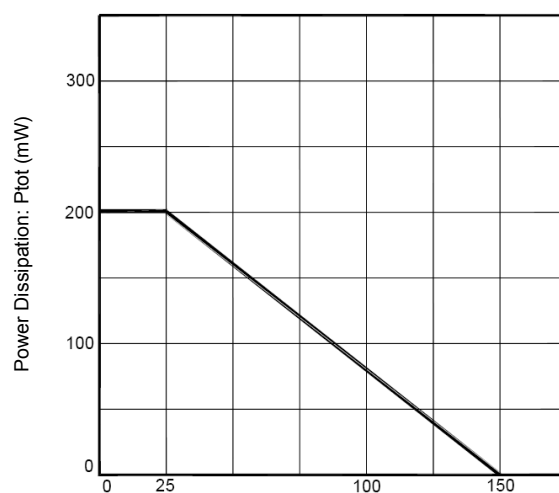


Fig.6 Zener Voltage versus Zener Current
(12 V to 75 V)



Ambient Temperature: T_a ($^\circ\text{C}$)

Derating Curve

Fig.7 Power Dissipation VS Ambient Temperature