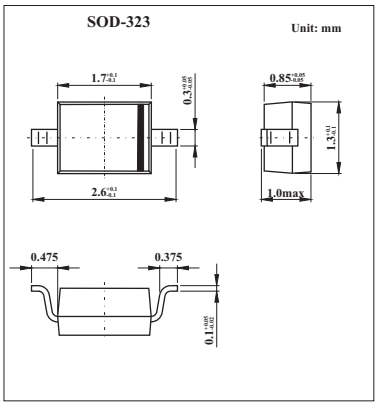
Surface Mount Zener Diode

MM3Z18VS



Features

Planar Die Construction

Ultra-Small Surface Mount Package

Ideally Suited for Automated Assembly Processes

Absolute Maximum Ratings Ta = 25℃

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)	$R_{\theta JA}$	625	℃/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150	℃

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

Electrical Characteristics @Ta=25℃ unless otherwise specified

Type Number	Zener Voltage Range (Note 2)				Maximum ZenerImpedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I_{ZT} mV/℃	
	Vz @ 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
MM3Z18VS	16.8	18	19.1	5	45	80	0.5	0.05	12.6	12.4	16

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

3. f = 1kHz.

Marking

Marking	2J

MM3Z18VS

■ Typical Characteristics

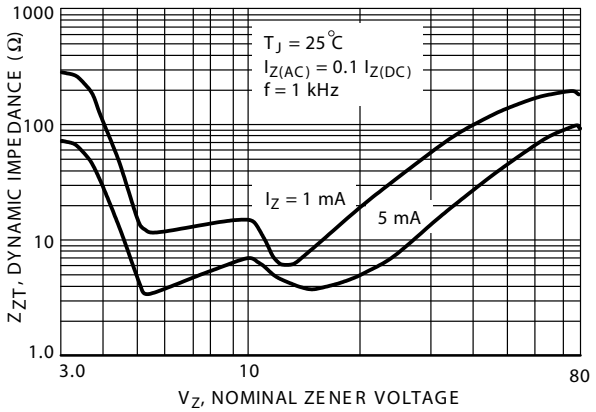


Fig.1 Effect of Zener Voltage on Zener Impedance

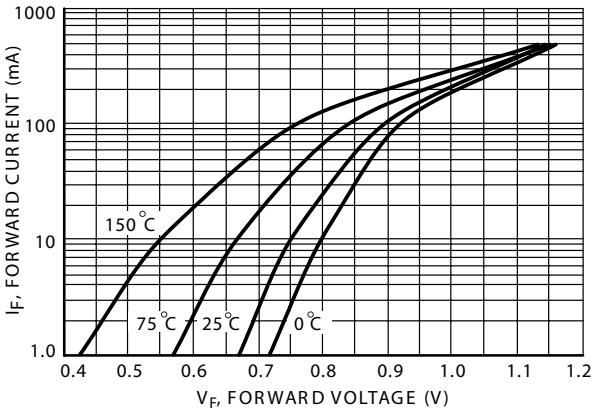


Fig.2 Typical Forward Voltage

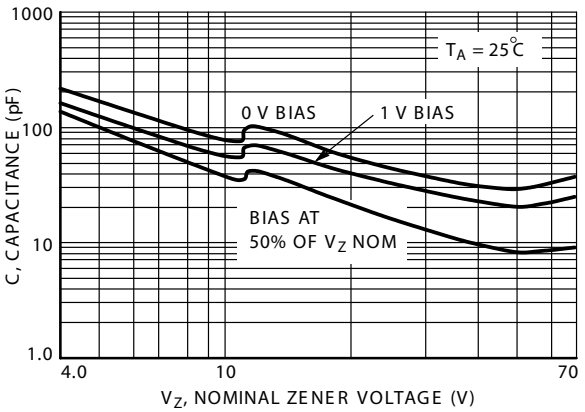


Fig.3 Typical Capacitance

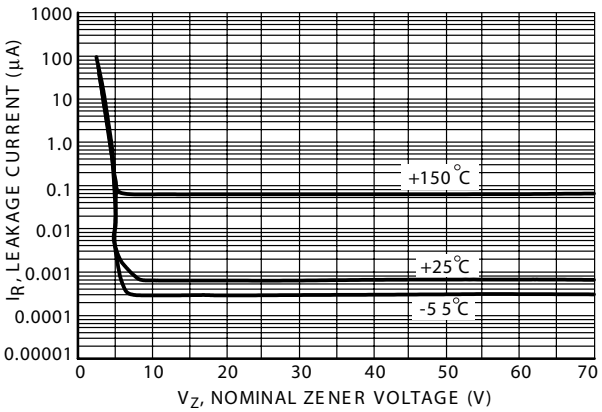


Fig.4 Typical Leakage Current

MM3Z18VS

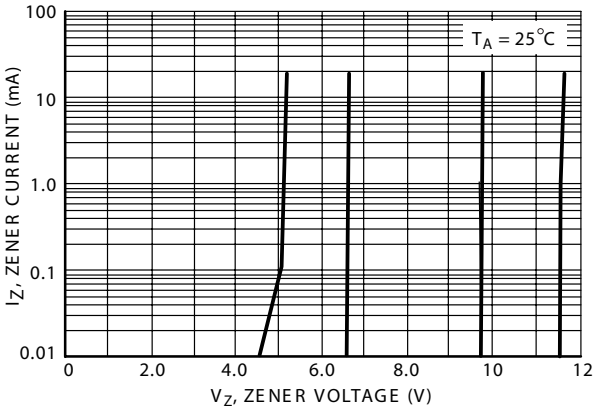


Fig.5 Zener Voltage versus Zener Current

(Vz Up to 12 V)

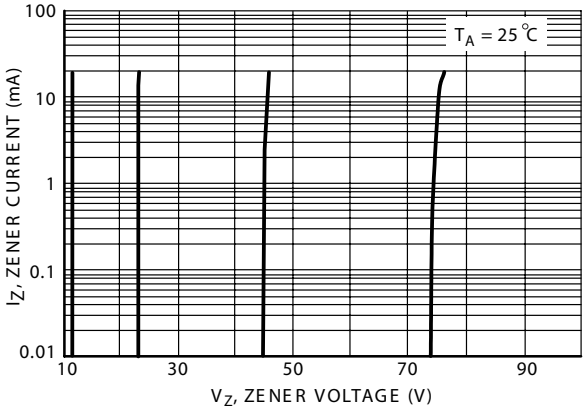
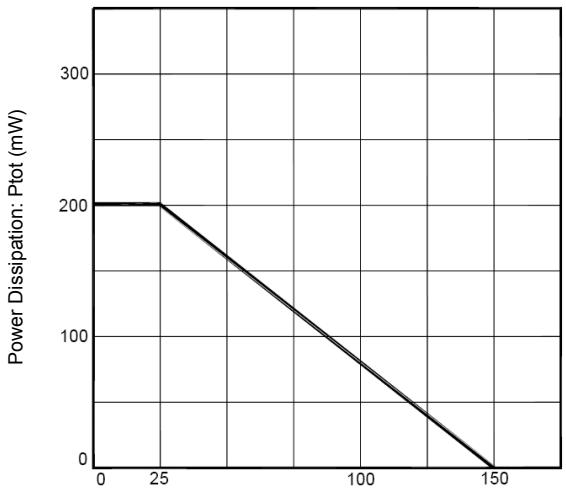


Fig.6 Zener Voltage versus Zener Current

(12 V to 75 V)



Derating Curve

Fig.7 Power Dissipation VS Ambient Temperature