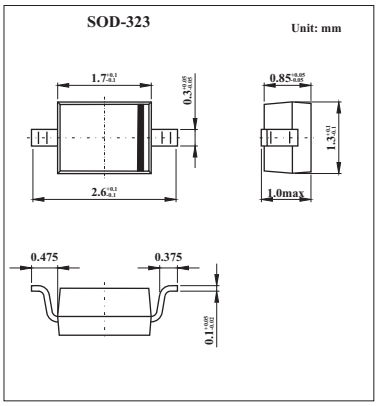
TY Semicondutor®

Product specification

MM3Z47VS



■ 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/℃	
	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
MM3Z47VS	44	47	50	2	170	500	0.5	0.05	32.9	42	51.8

Notes: 2. Short duration test pulse used to minimize self-heating effect.
3. f = 1kHz.

■ Marking

Marking	3B

MM3Z47VS

■ Typical Characteristics

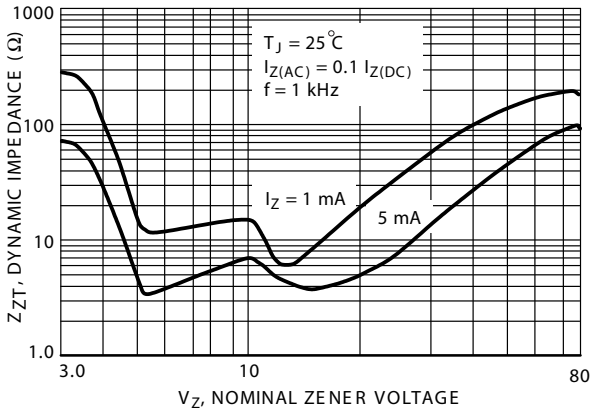


Fig.1 Effect of Zener Voltage on Zener Impedance

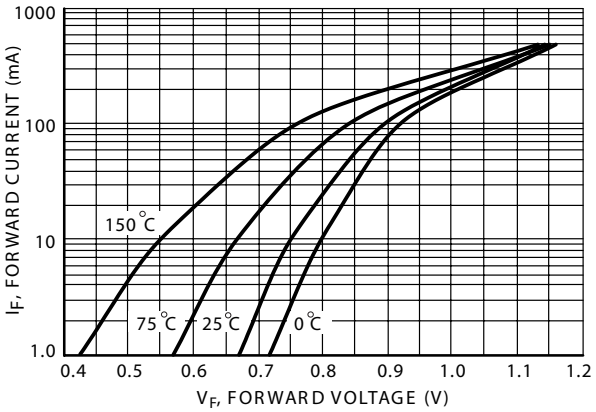


Fig.2 Typical Forward Voltage

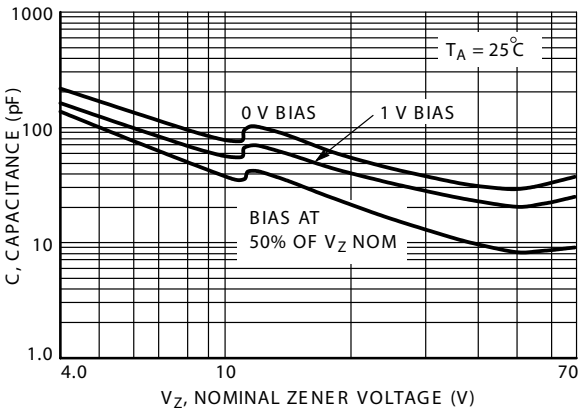


Fig.3 Typical Capacitance

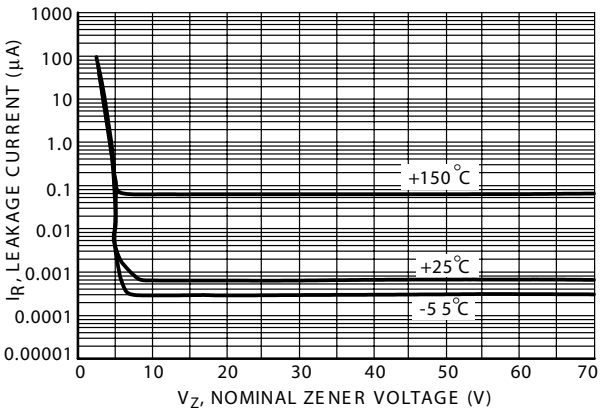


Fig.4 Typical Leakage Current

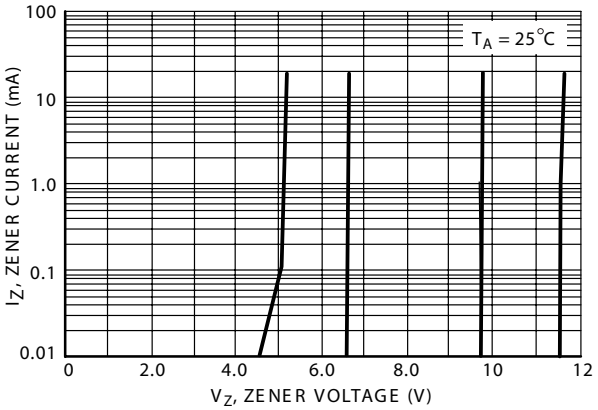


Fig.5 Zener Voltage versus Zener Current

(Vz Up to 12 V)

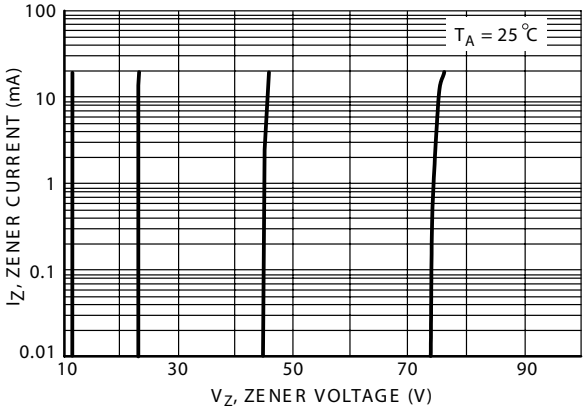
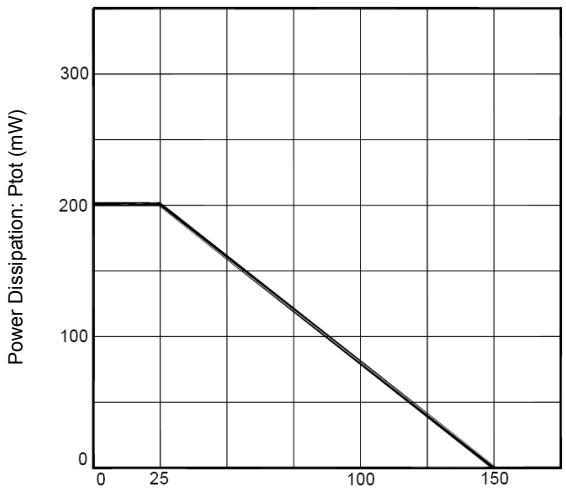


Fig.6 Zener Voltage versus Zener Current

(12 V to 75 V)



Derating Curve

Fig.7 Power Dissipation VS Ambient Temperature