

MM1Z3V3X-CH

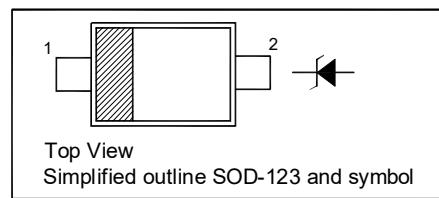
Silicon Planar Zener Diode

Features

- AEC-Q101 Qualified
- Power dissipation: max. 500 mW
- Small plastic package suitable for surface mounted design
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation $T_L = 75^\circ\text{C}$ ¹⁾	P_D	500	mW
Operating Junction Temperature Range	T_j	- 55 to + 150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ²⁾	$R_{\theta JA}$	340	°C/W
Thermal Resistance Junction to Lead ¹⁾	$R_{\theta JL}$	150	°C/W

¹⁾ FR-4 PCB = 89 * 38 mm.

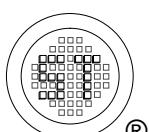
²⁾ Mounted on an FR-4 PCB 38 * 38 * 1.6 mm with single-sided Cu pad areas 25mm²(>70 µm thick).

Characteristics at $T_a = 25^\circ\text{C}$ ($V_F = 0.9 \text{ V Max. at } I_F = 10 \text{ mA}$)

Type	Zener Voltage Range ¹⁾			Dynamic Impedance ²⁾		Reverse Leakage Current	
	V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
	V	V	mA	Max. (Ω)	mA	Max. (µA)	V
MM1Z3V3X	3.3	3.1...3.5	5	130	5	20	1

¹⁾ V_Z is tested with pulses (20 ms).

²⁾ Z_{ZT} is measured at I_Z by given a very small A.C. current signal.



Electrical Characteristics Curves

Fig. 1 Zener Characteristics Curve

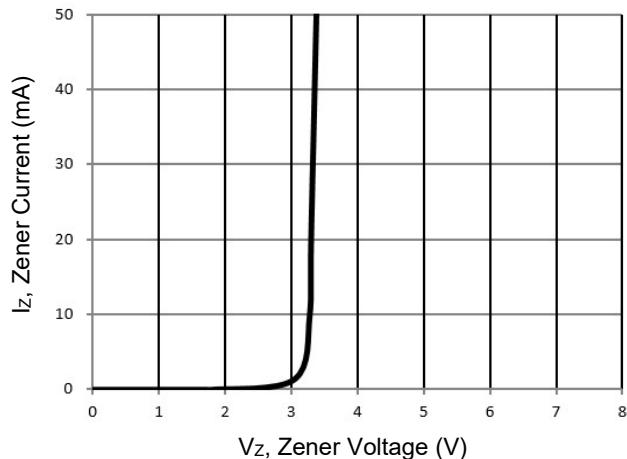
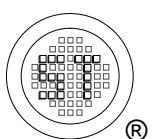
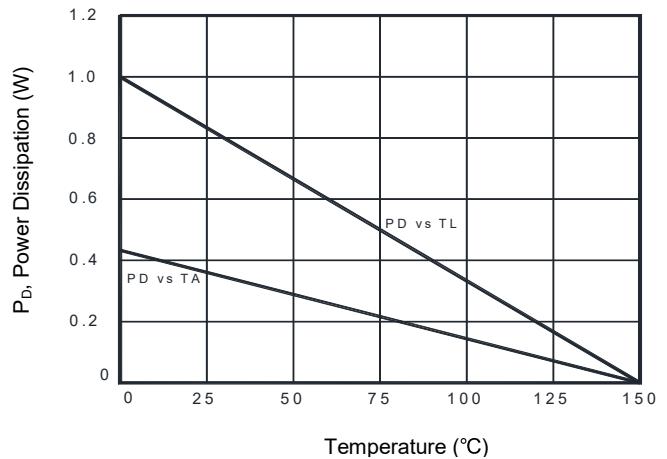


Fig. 2 Power Derating Curve

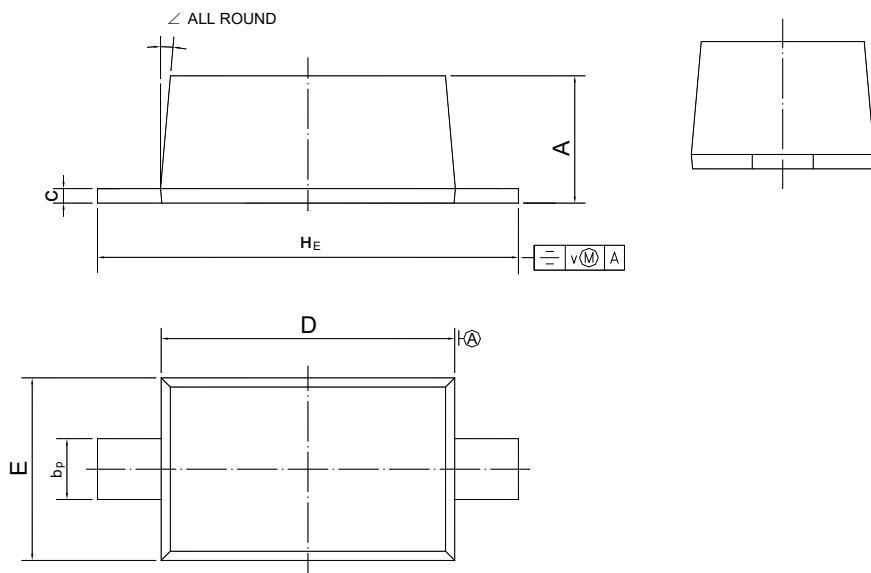


MM1Z3V3X-CH

PACKAGE OUTLINE

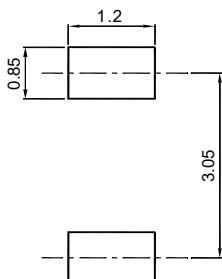
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	c	D	E	H _E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

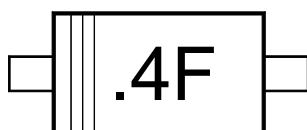
Marking information

"4F" = Part No.

"III" = Cathode line

"•" = HAF (Halogen and Antimony Free)

Font type: Arial



Disclaimer: Our company reserve the right to make modifications, enhancements, improvements, corrections or other changes to improve product design, functions and reliability, anytime without notice. Semtech Electronics Limited makes no warranties, representations or warranties regarding the suitability of its products for any particular purpose, and does not accept any liability arising from the application or use of any product or circuit such as: Apply to medical, military, aircraft, space or life support equipment and expressly waive any and all liability, including but not limited to special, consequential or collateral damage.

