

MM1Z3V3X-CH

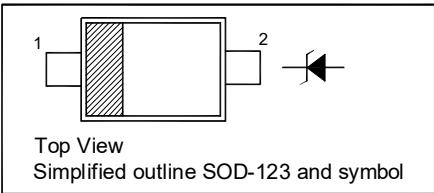
Silicon Planar Zener Diode

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	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^{\circ}\text{C}$

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

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

$^{1)}$ FR-4 PCB = 89 * 38 mm.

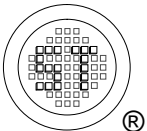
$^{2)}$ Mounted on an FR-4 PCB 38 * 38 * 1.6 mm with single-sided Cu pad areas 25mm 2 (>70 μm thick).

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

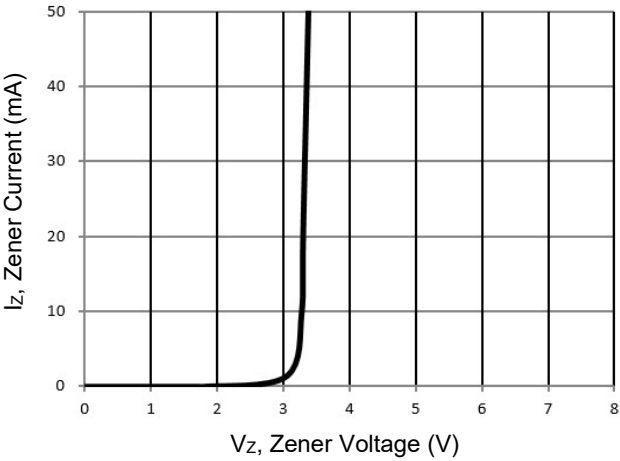
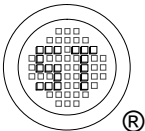
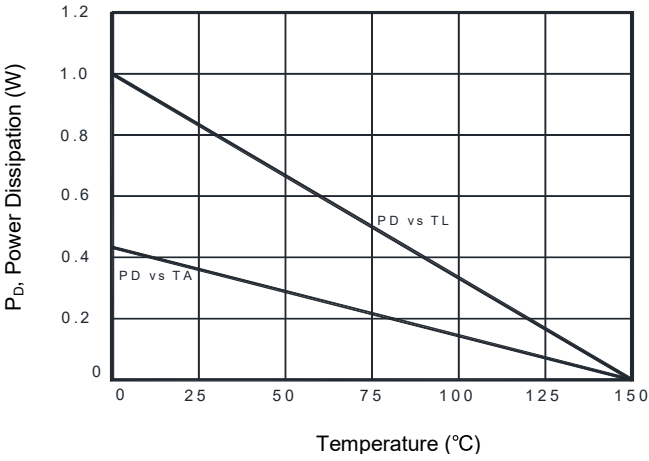


Fig. 2 Power Derating Curve

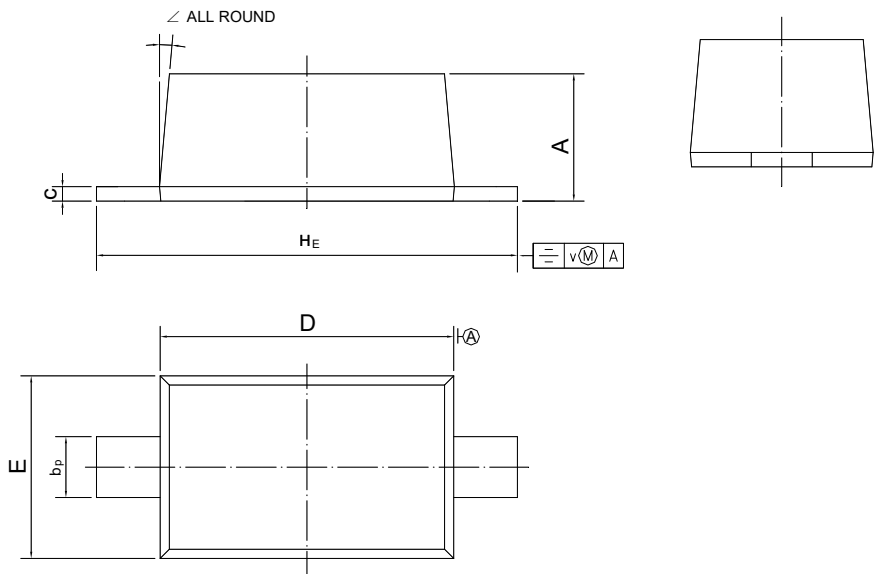


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PACKAGE OUTLINE

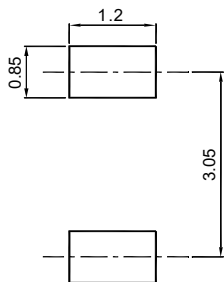
Plastic surface mounted package; 2 leads

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

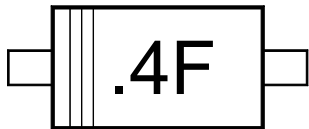


Packing information

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



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