

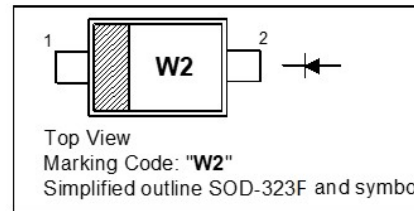
Silicon Epitaxial Planar Switching Diode

Features

- AEC-Q101 Qualified
- Small SMD SOD-323F plastic package
- High switching speed: $t_{rr} \leq 4\text{ns}$
- Repetitive Peak Reverse Voltage: $V_{RRM} \leq 100\text{V}$
- Low leakage current
- Low capacitance
- High reliability
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Applications

- High-speed switching
- General-purpose switching

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Reverse Voltage	V_R	100	V
Continuous Forward Current	I_F	250	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Current	I_{FSM}	$t = 1\text{ }\mu\text{s}$	4
		$t = 1\text{ ms}$	1
		$t = 1\text{ s}$	0.5
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 150\text{ mA}$	V_F	0.715 0.855 1 1.25	V
Reverse Current at $V_R = 25\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$ at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$	I_R	30 1 30 50	nA μA μA μA
Diode Capacitance at $V_R = 0\text{ V}, f = 1\text{ MHz}$	C_{tot}	1.5	pF
Reverse Recovery Time at $I_F = 10\text{ mA}, V_R = 6\text{ V}, I_{rr} = 0.1 \times I_R, R_L = 100\text{ }\Omega$	t_{rr}	4	ns

Electrical Characteristics Curves

Fig 1. Power Dissipation vs. Temperature

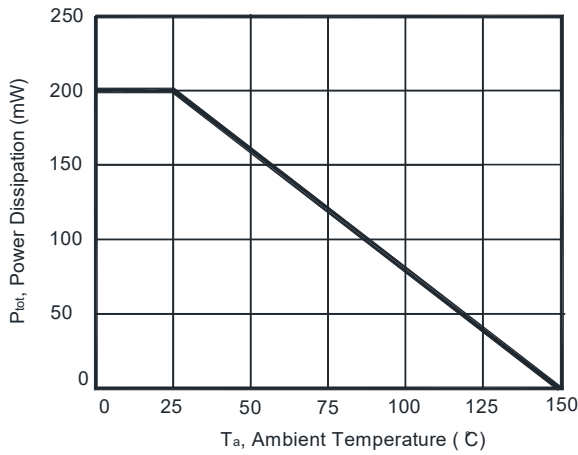


Fig 2. Total Capacitance vs. Reverse Voltage

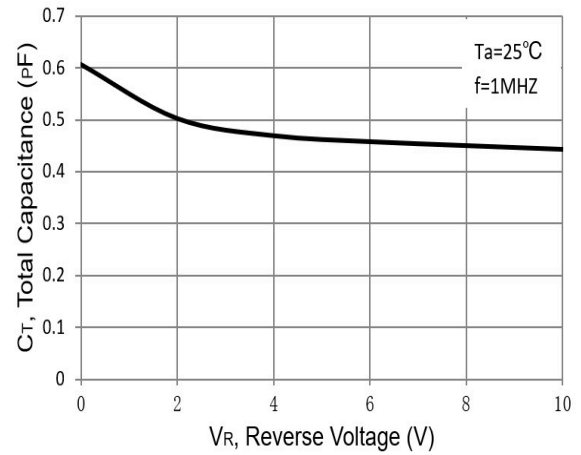


Fig 3. Reverse Current vs. Reverse Voltage

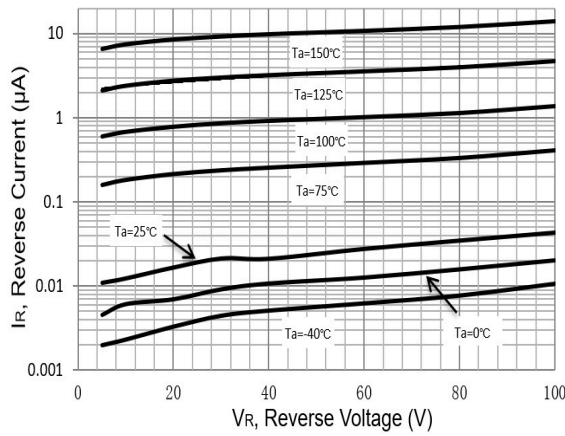
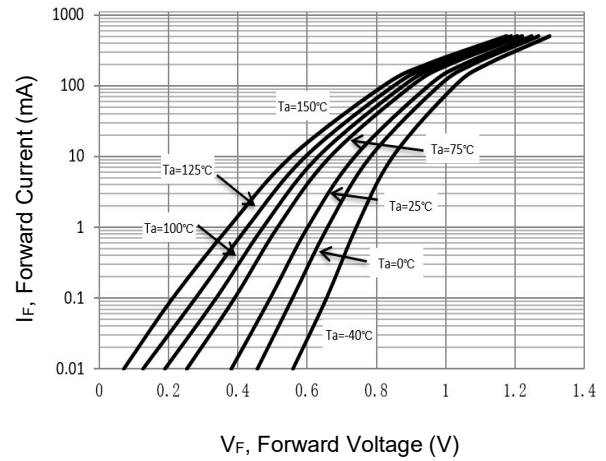


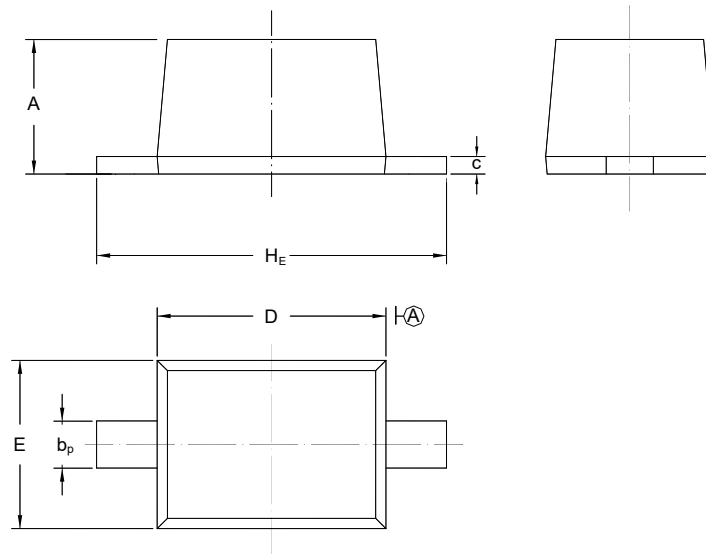
Fig 4. Forward Characteristics



PACKAGE OUTLINE

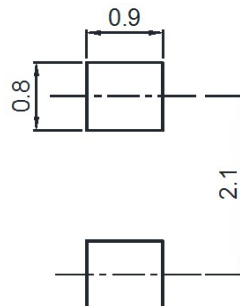
Plastic surface mounted package; 2 leads

SOD-323F



UNIT	A	b _p	C	D	E	H _E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323F	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" W2 " = Part No.

Font type: Arial

