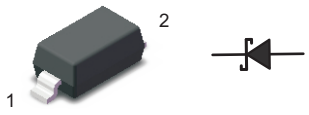
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Simplified outline SOD-123 and symbol

Features

- Very low forward voltage
- High Current Capability

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}	20	V
DC Reverse Voltage	V_R	20	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5	A
Non-Repetitive Peak Forward Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	5.5	A
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	340	°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	°C/W
Junction Temperature	T_j	125	°C
Storage Temperature	T_{stg}	- 65 to + 150	°C

1) Following any rated load condition and with rated V_{RRM} applied.

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 0.1 A, T_j = 25 °C at I_F = 0.5 A, T_j = 25 °C at I_F = 0.1 A, T_j = 100 °C at I_F = 0.5 A, T_j = 100 °C	V_F	 0.375 0.44 0.26 0.36	V
Reverse Current at V_R = 10 V, T_j = 25 °C at V_R = 20 V, T_j = 25 °C at V_R = 10 V, T_j = 100 °C at V_R = 20 V, T_j = 100 °C	I_R	 40 150 3 7	 μA μA mA mA
Total Capacitance at V_R = 5 V (test signal range 100 KHz to 1 MHz), T_j = 25 °C	C_{tot}	110	pF

Typical Characteristics

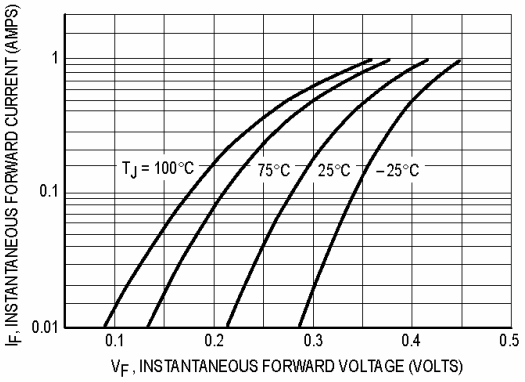


Figure 1. Typical Forward Voltage

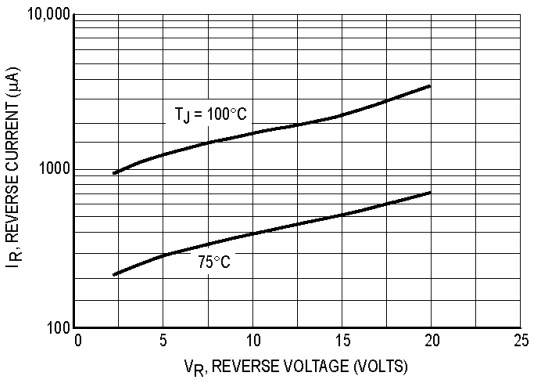


Figure 2. Typical Reverse Current

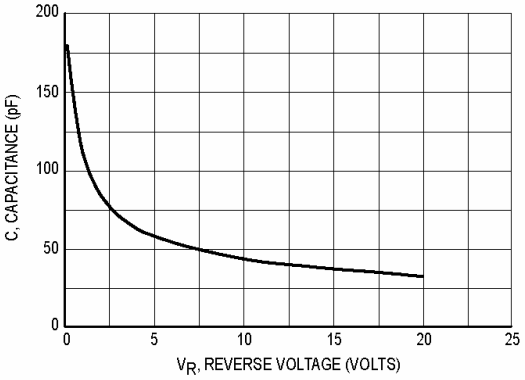


Figure 3. Typical Capacitance

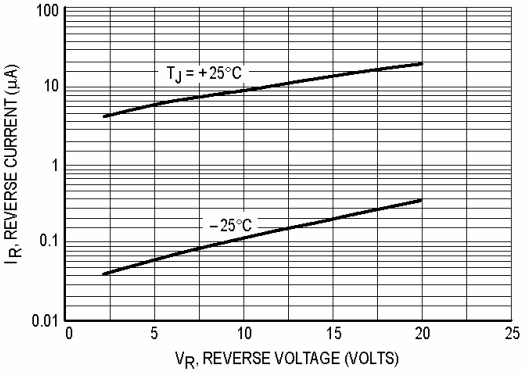


Figure 4. Typical Reverse Current

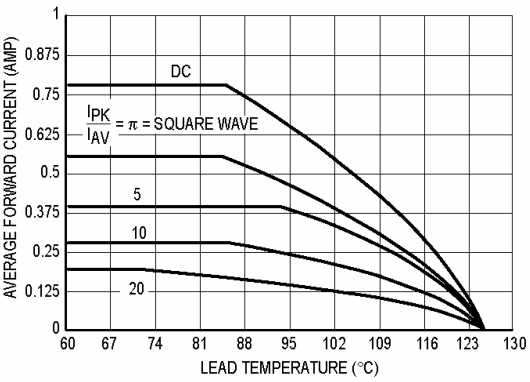


Figure 5. Current Derating (Lead)

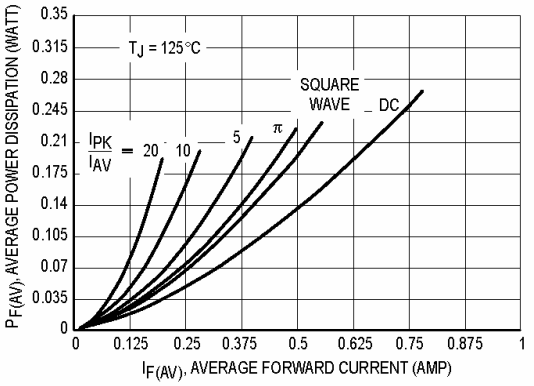
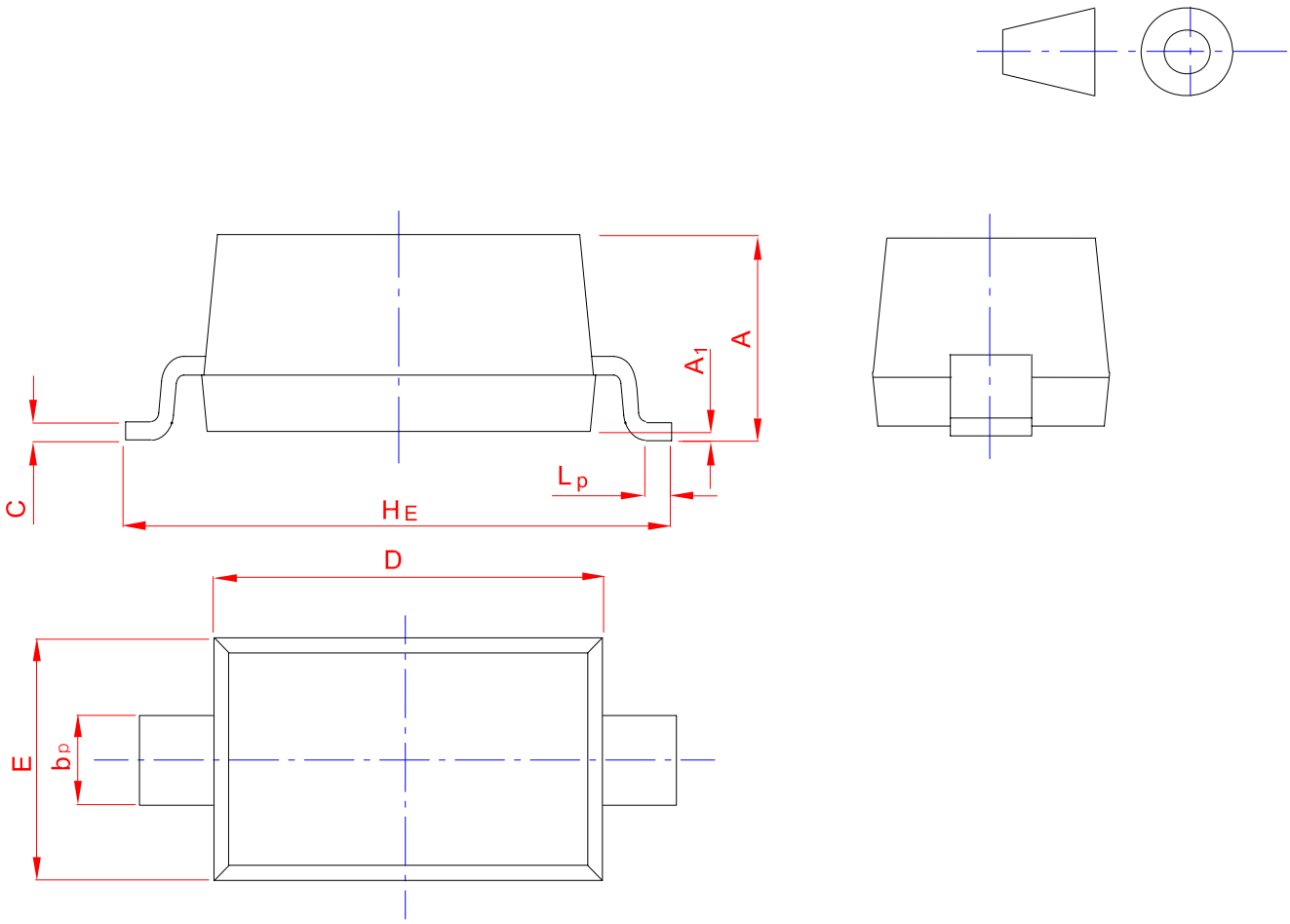


Figure 6. Power Dissipation

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	C	D	E	H_E	A_1	L_p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20