

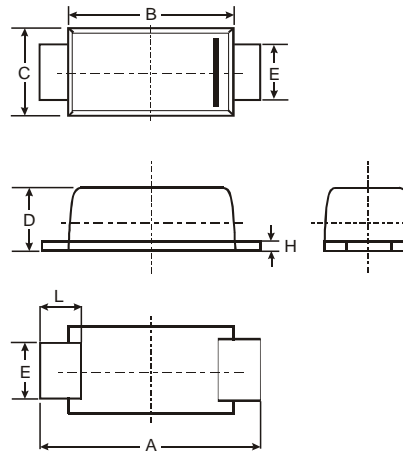
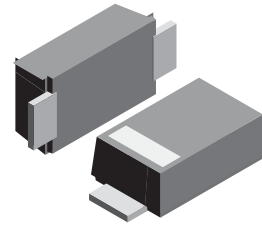
VOLTAGE RANGE: 30V
CURRENT: 20mA

Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application

Mechanical Data

- Case: SOD-123FL
plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Weight: 0.0007 ounce, 0.02 grams
- BAT42W L2
- BAT43W L3



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

Maximum Ratings @_{T_A}=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{VRWM} V _R	30	V
Forward Continuous Current (Note 1)	I _F	200	mA
Repetitive Peak Forward Current (Note 1) @ t < 1.0s	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current @ t < 10ms	I _{FSM}	4.0	A
Power Dissipation	P _d	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	625	K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +125	°C

Electrical Characteristics @_{T_A}=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V _{(BR)R}	30	—	—	V	@ I _{RS} = 100μA
Forward Voltage	V _F	—	—	0.4 1.0 0.33 1.0	V	@ I _F = 10mA @ I _F = 200mA @ I _F = 2mA @ I _F = 200mA
Reverse Leakage Current	I _R	—	—	0.5	μA	@ V _R = 25V
Junction Capacitance	C _j	—	—	10	pF	V _R = 1.0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	—	5	nS	I _F = 10mA through I _R = 10mA to I _R = 1mA, R _L = 100Ω

Note: 1. Valid provided that terminals are kept at ambient temperature.



SUNMATE

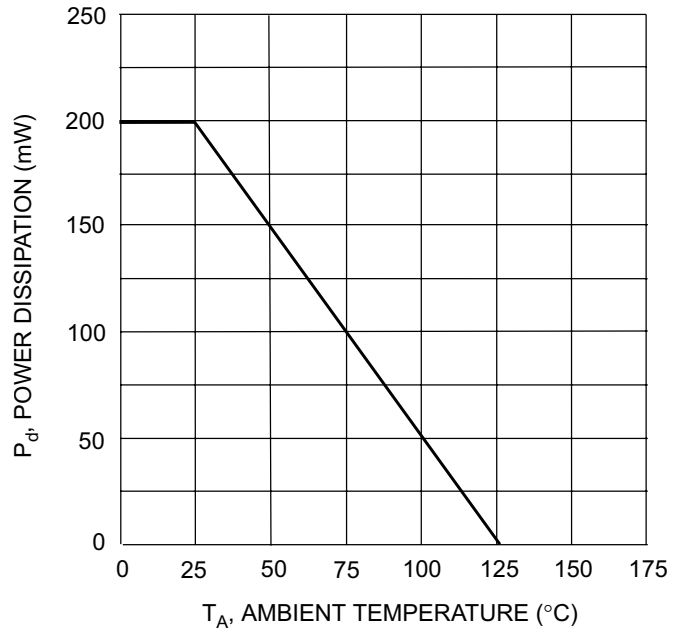


Fig. 1 Power Derating Curve