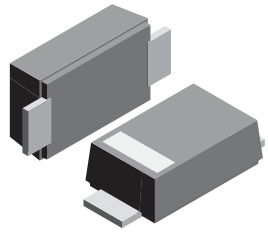
BAT42W - BAT43W

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS DIODE

VOLTAGE RANGE: 30V
CURRENT: 200mA



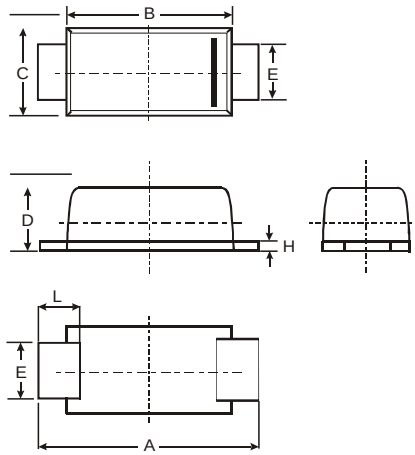
Features

- 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

RoHS COMPLIANT



SOD-123FL			
Dim	Min	Max	Typ
A	3.50	3.80	3.65
B	2.60	2.90	2.75
C	1.70	1.90	1.80
D	0.09	1.10	1.00
E	0.08	1.10	0.095
H	0.12	0.20	0.16
L	0.07	0.09	0.08
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_{RWM} 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)	$R_{\theta JA}$	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	BAT42W	V_F	—	—	0.4	V	@ I_F = 10mA
	BAT42W				1.0		@ I_F = 200mA
	BAT43W				0.33		@ I_F = 2mA
	BAT43W				1.0		@ 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.

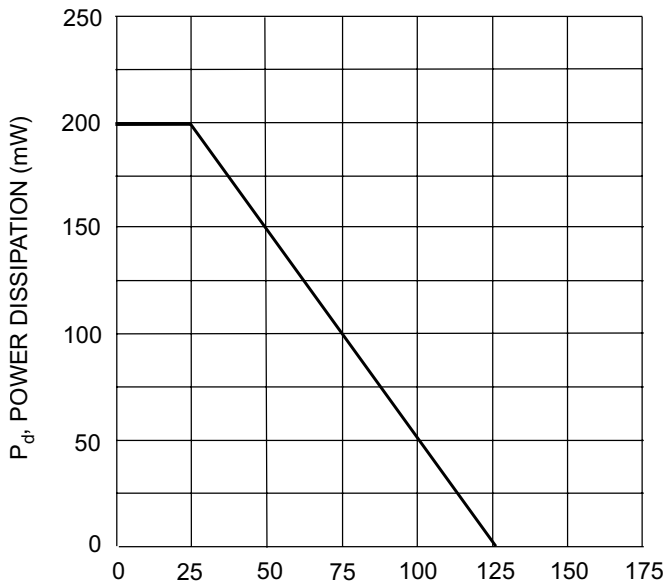


Fig. 1 Power Derating Curve