

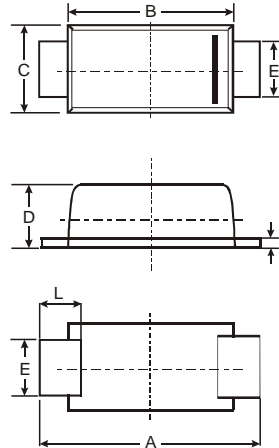
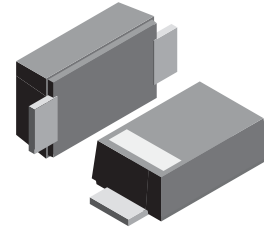
**VOLTAGE RANGE: 100V**  
**CURRENT: 75mA**

### Features

- High Breakdown Voltage
- Low Turn-on Voltage
- Guard Ring Construction for Transient Protection

### Mechanical Data

- Case: SOD-123FL  
plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



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<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	BAT46W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	V
Average Rectified Forward Current	$I_O$	75	mA
Forward Continuous Current	$I_F$	150	mA
Repetitive Peak Forward Current @ t <sub>p</sub> < 1.0s, Duty Cycle < 50%	$I_{FRM}$	350	mA
Forward Surge Forward Current (Note 1) @ t <sub>p</sub> = 10ms	$I_{FSM}$	750	mA
Power Dissipation (Note 1)	$P_d$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +125	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	100	—	—	V	$I_R = 100\mu A$
Forward Voltage	$V_F$	—	—	0.25 0.45 1.00	V	$I_F = 0.1mA$ $I_F = 10mA$ $I_F = 250mA$
Peak Reverse Current	$I_R$	—	—	0.5 5.0 0.8 7.5 2.0 15 5.0 20	$\mu A$	$V_R = 1.5V$ $V_R = 1.5V, T_j = 60^\circ C$ $V_R = 10V$ $V_R = 10V, T_j = 60^\circ C$ $V_R = 50V$ $V_R = 50V, T_j = 60^\circ C$ $V_R = 75V$ $V_R = 75V, T_j = 60^\circ C$
Total Capacitance	$C_T$	—	10 6.0	—	pF	$V_R = 0V, f = 1.0MHz$ $V_R = 1.0V, f = 1.0MHz$