

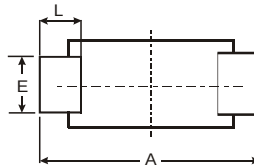
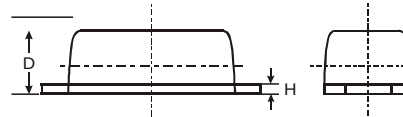
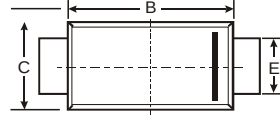
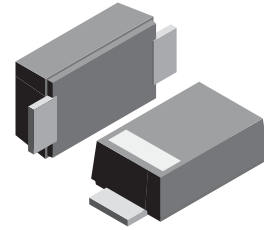
VOLTAGE RANGE: 100V
CURRENT: 100mA

Features

- or general purpose applications
- This diode features low turn-on voltage and high breakdown voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges

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	3.50	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 and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Continuous reverse voltage	V_{RRM}	100	V
Forward continuous current @ $T_A=25^\circ\text{C}$	I_F	100 ¹⁾	mA
Repetitive peak forward current $tp \leq 1s, \delta \leq 0.5$	I_{FRM}	350 ¹⁾	mA
Surge forward current @ $tp \leq 10ms$	I_{FSM}	750 ¹⁾	mA
Power dissipation @ $T_A=95^\circ\text{C}$	P_{tot}	100 ¹⁾	mW
Junction temperature	T_J	-55 ---+ 125	°C
Ambient operating temperature range	T_L	230	°C
Storage temperature range	T_{STG}	-55 ---+ 150	°C

1) On infinite heatsink with 4mm lead length.

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage @ $I_R=100\mu\text{A}, T_J=25^\circ\text{C}$	V_{BR}	100	-	-	V
Forward voltage @ $I_F=1\text{mA}, T_J=25^\circ\text{C}$	V_F	-	0.4	0.45	V
@ $I_F=200\text{mA}, T_J=25^\circ\text{C}$		-	-	1.0	
Leakage current @ $T_J=25^\circ\text{C}$	I_R	-	-	0.1	μA
$V_R=50\text{V}$ @ $T_J=100^\circ\text{C}$		-	-	20	
Junction capacitance at $V_R=1\text{V}, f=1\text{MHz}$	C_J	-	-	20	pF
Thermal resistance junction to ambient	$R_{\theta JA}$	-	-	300 ¹⁾	°C/W

2) Pulse test $tp < 300 \mu\text{s}$.

FIG.1 – ADMISSIBLE POWER DISSIPATION VS. AMBIENT TEMPERATURE

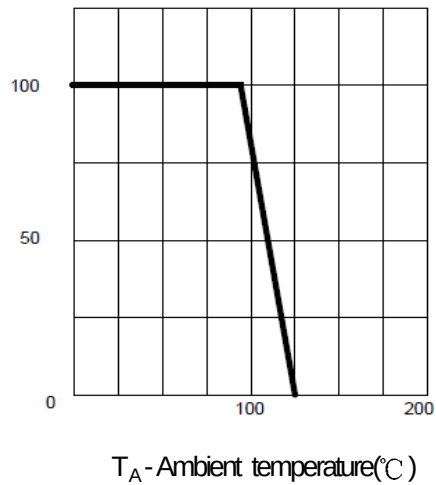


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

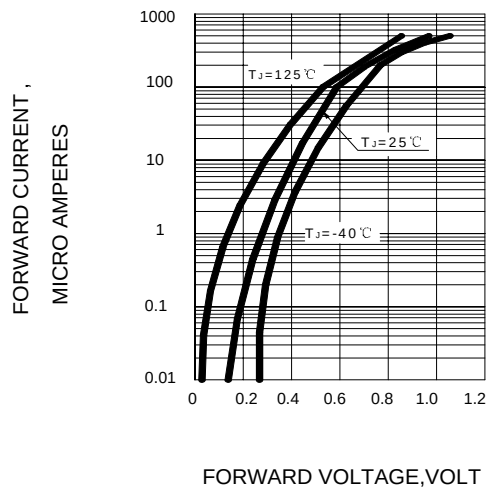


FIG.3 – TYPICAL REVERSE CHARACTERISTICS

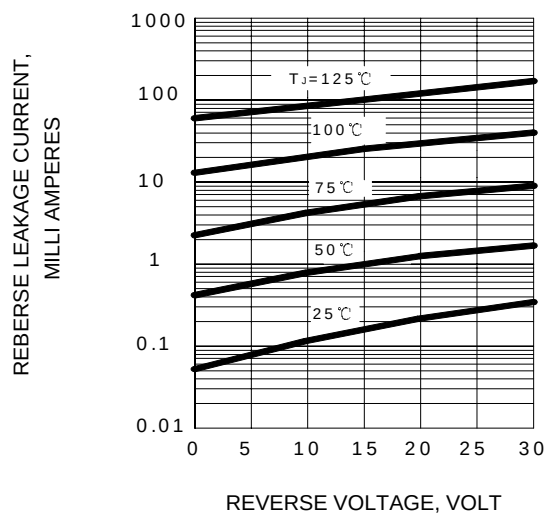


FIG.4 – TYPICAL JUNCTION CAPACITANCE

