

Features

- Ideal for automated placement
- Superior Reverse Avalanche Capability
- +175°C Operation Junction Temperature
- Low power loss, high efficiency, High Reliability
- High temperature soldering:
260°C/10 seconds at terminals
- Meets MSL level 1, per J-STD-020
- Component in accordance to RoHS 2011/65/EU



SOD-123FL

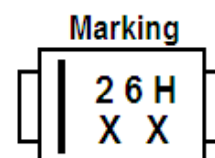


RoHS
COMPLIANT

HALOGEN
FREE
Available

Mechanical Data

- **Case:** SOD-123FL
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Laser band denotes cathode end



26=Product Type Marking Code
H = High junction temperature
XX = Date Code

Maximum Ratings (T_A = 25 °C unless otherwise specified)

Characteristic	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	60	V
Maximum RMS voltage	V _{RMS}	42	V
Maximum DC blocking voltage	V _{DC}	60	V
Maximum average forward rectified current	I _{F(AV)}	2	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50	A
Thermal resistance from junction to lead ⁽¹⁾	R _{θJL}	25	°C/W
Thermal resistance from junction to ambient ⁽¹⁾	R _{θJA}	80	°C/W
Operating junction temperature range	T _J	-65 to +175	°C
Storage temperature range	T _{STG}	-65 to +175	°C

Note 1: Mounted on P.C.B. with 0.036 x 0.06" (0.9 x 1.5mm) copper pad areas.

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Symbol	Test conditions	Min	Typ	Max	Unit
Instantaneous forward voltage	V_F	$I_F=1\text{A}^{(2)}, T_J=25^\circ\text{C}$	—	0.6	0.65	V
		$I_F=2\text{A}^{(2)}, T_J=25^\circ\text{C}$	—	0.65	0.72	
Reverse current	I_R	$V_R=V_{DC}, T_J=25^\circ\text{C}$	—	0.1	0.70	μA
		$T_J=125^\circ\text{C}$	—	60	—	

Note 2: Pulse test:300 μs pulse width,1% duty cycle

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1 DC Forward Current Derating Curve

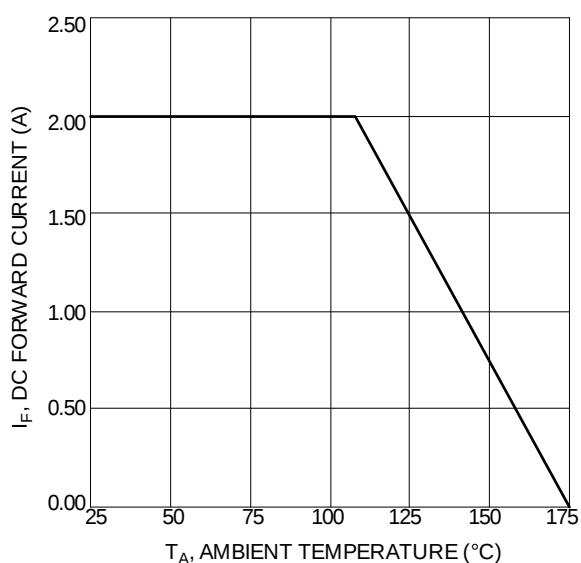


Figure 2 Forward Power Dissipation

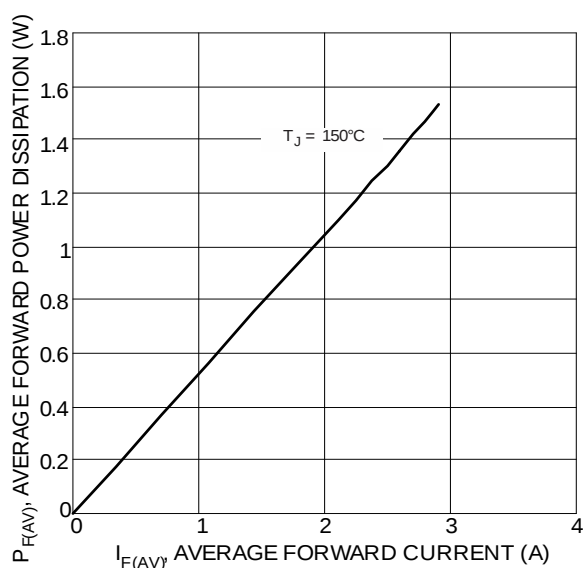


Figure 3 Typical Forward Characteristics

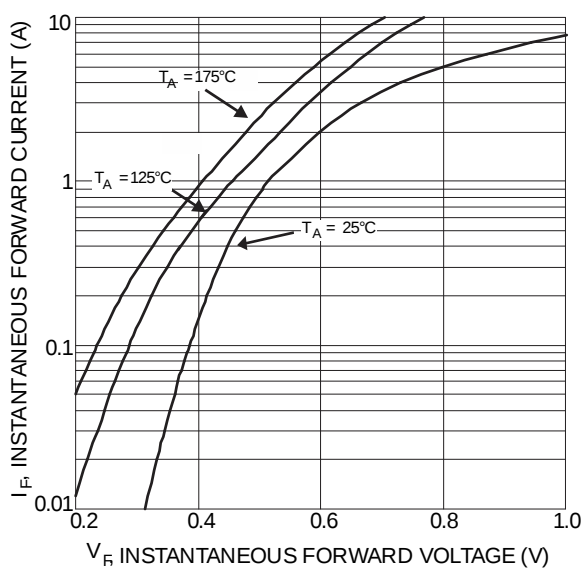
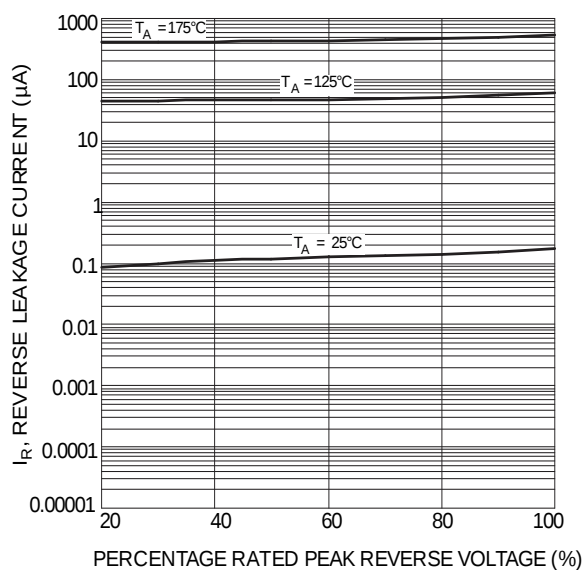
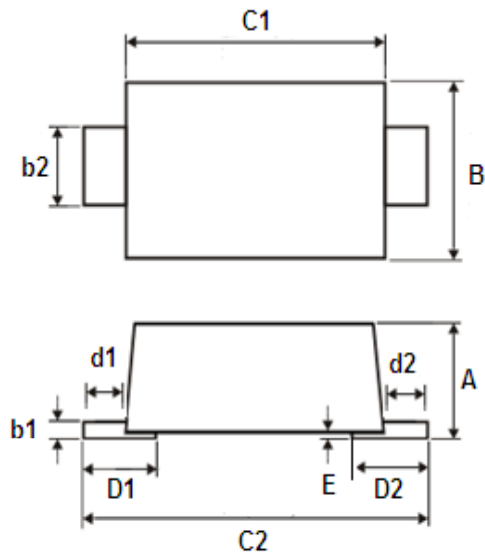


Figure 4 Typical Reverse Characteristics



Package Outline



Ref.	Millimeters
A	1.15±0.05
B	1.9±0.05
b 1	0.15±0.05
b 2	0.75±0.05
C1	2.7±0.05
C2	3.7±0.1
D(D1、 D2)	0.75±0.3
d(d1、 d2)	0.5±0.1
E	0-0.1