## Features

• Fast switching speed
• Surface mount package ideally suited for automatic insertion
• Low power loss, high efficiency
• Lead free in compliance with EU RoHS 2.0
• Green molding compound as per IEC 61249 standard

Mechanical Data

• Case: SOD-123FL, Plastic
• Terminals: Solderable per MIL-STD-750, Method 2026
• Approx. Weight: 0.0006 ounces, 0.0173 grams
• Polarity:Color band denotes cathode end
• Marking: RD

Dimensions and Pin Configuration

SOD123FL

Cathode   Anode
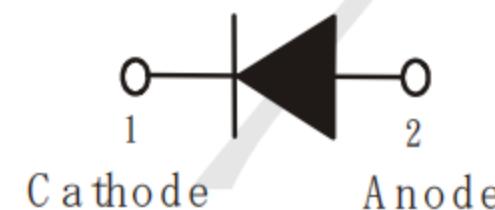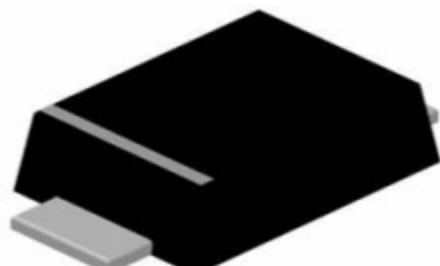
Marking:RD

Maximum Ratings & Thermal Characteristics

（Ratings at 25℃ ambient temperature unless otherwise specified.)

PARAMETER	SYMBOL	VALUE	UNITS
Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RRM}	100	V
Average Rectified Current	I_O	1	A
Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Typical Thermal Resistance, Junction to Ambient　(Note 1)	$R_{\theta JA}$	180	^{O}C/W
Operating Junction Temperature and Storage Temperature Range	T_J,T_{STG}	-55 to +150	^{O}C

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=1mA	100	110		V
Reverse Current	I_R	V_R=100V	-	-	100	μA
Forward Voltage	V_F	I_F=1.0A	-	0.68	0.75	V
Typical Junction Capacitance	C_J	V_R=0V, f=1.0MHz	-	203	-	pF

Typical Performance Characteristics (T_A=25℃ unless otherwise Specified)
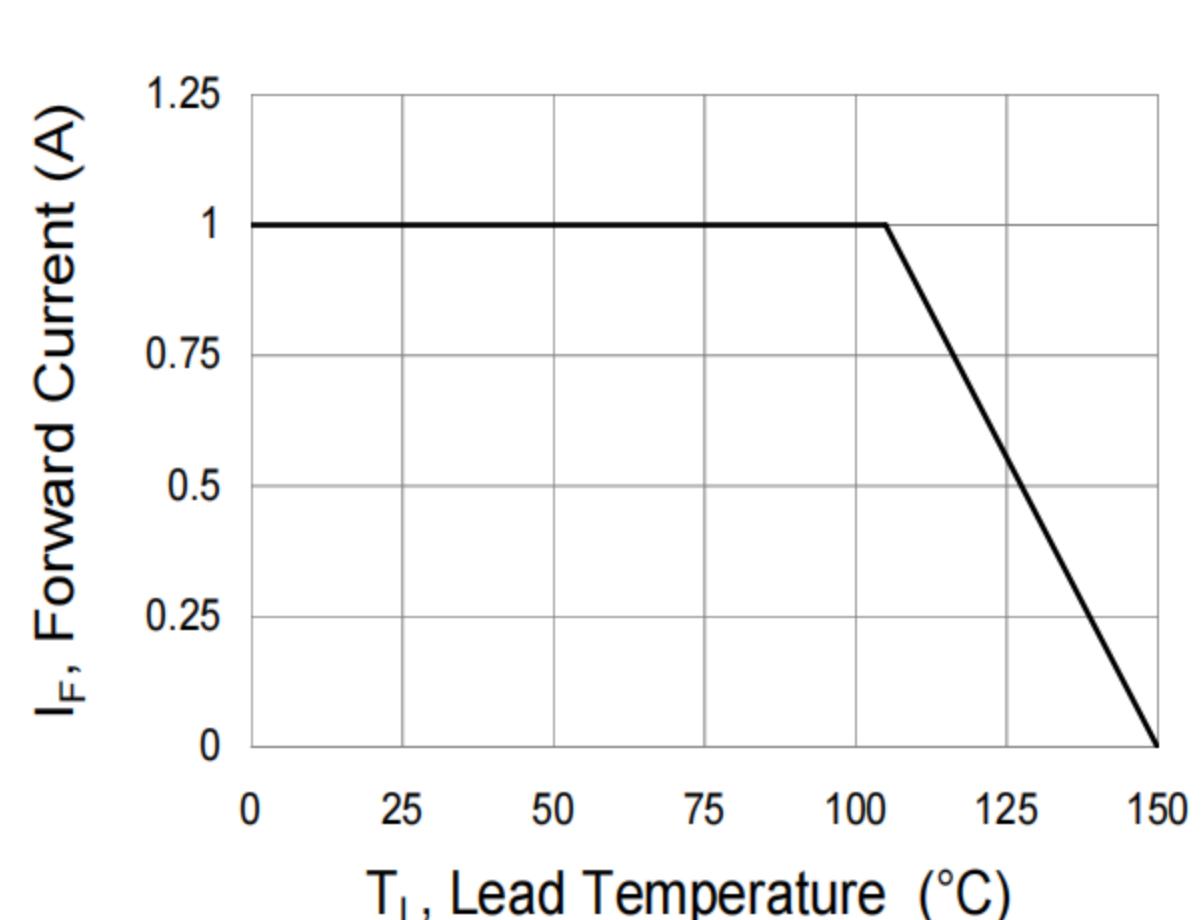
Fig.1 Forward Current Derating Curve
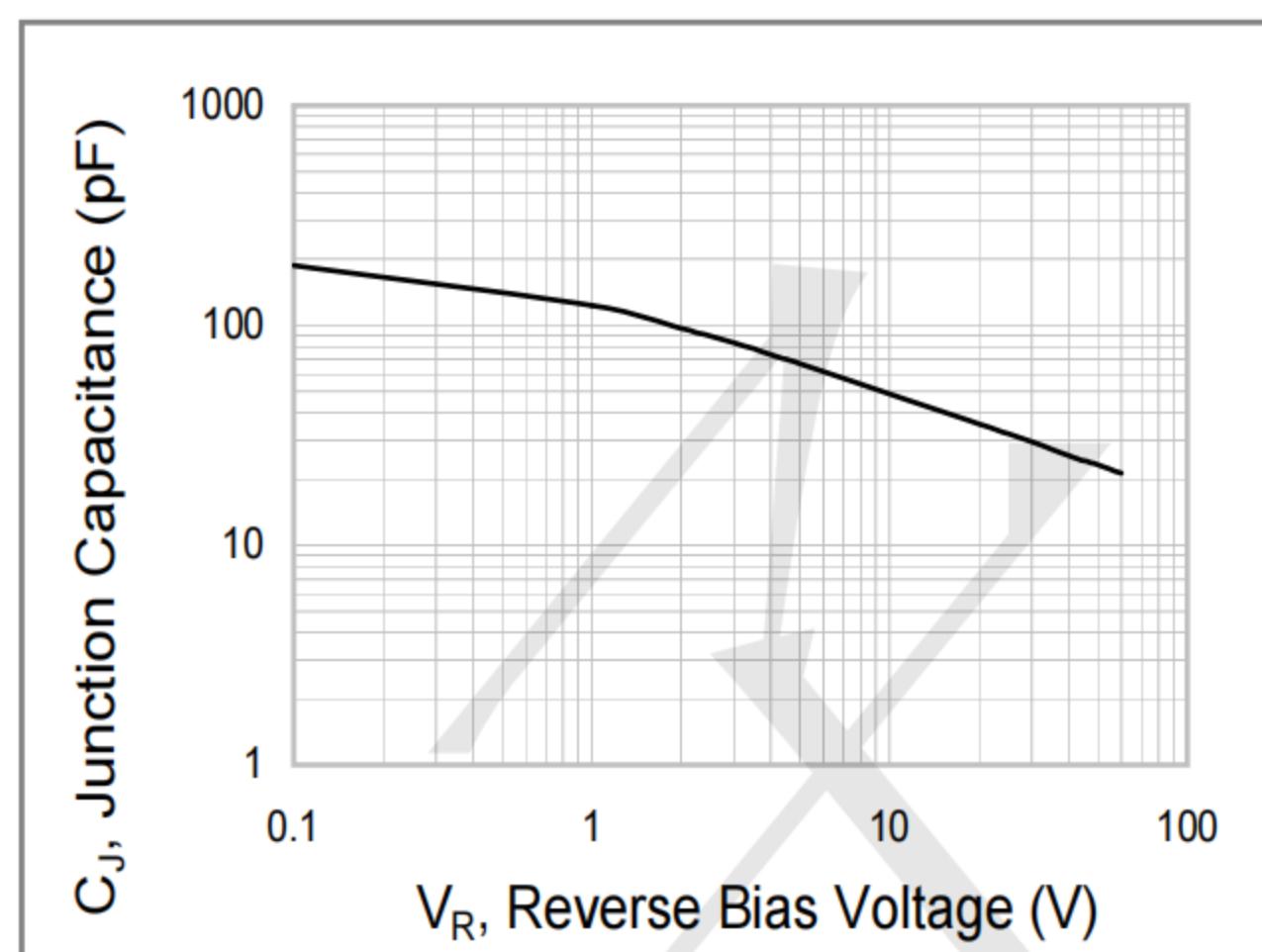
Fig.2 Typical Junction Capacitance
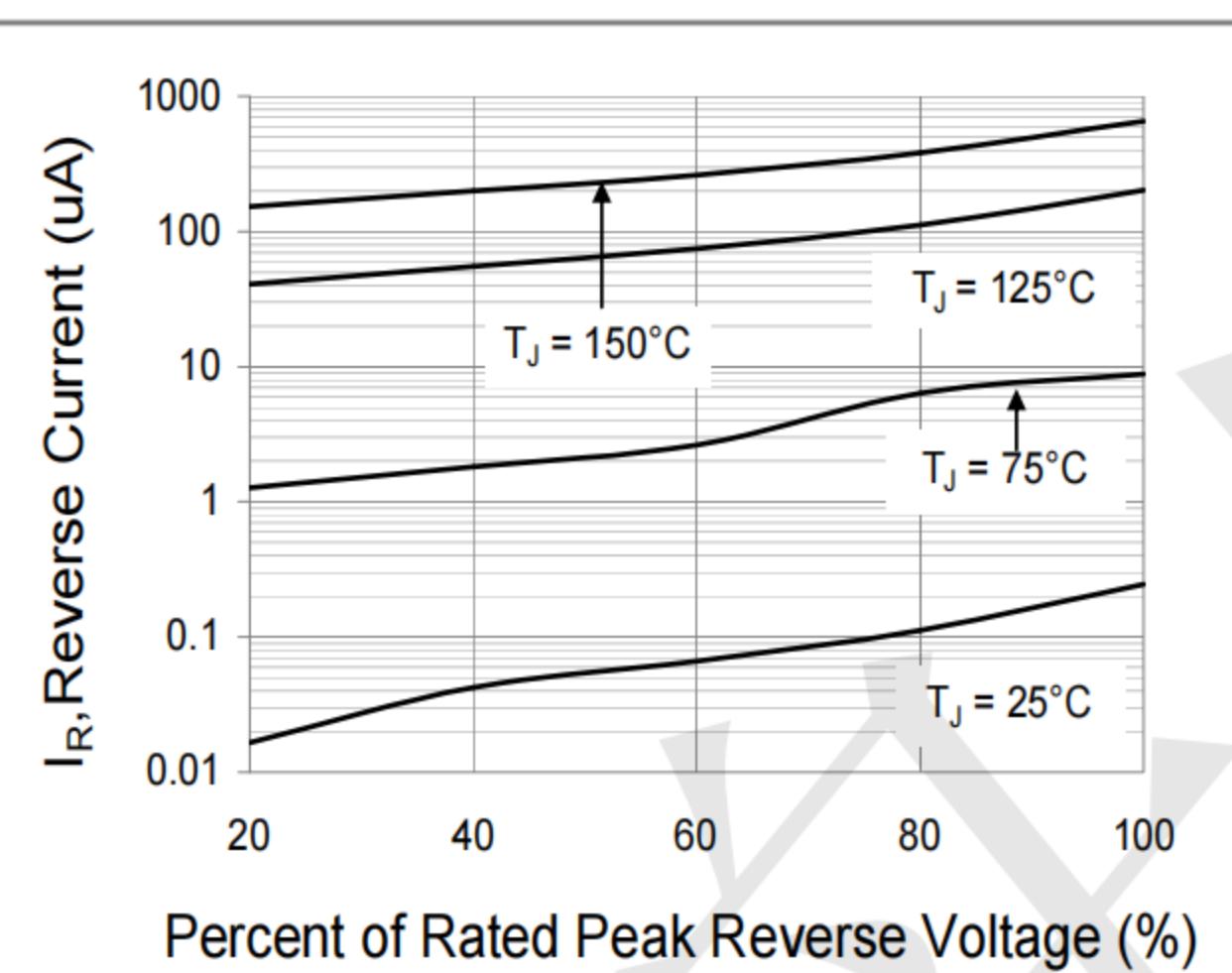
Fig.3 Typical Reverse Characteristics
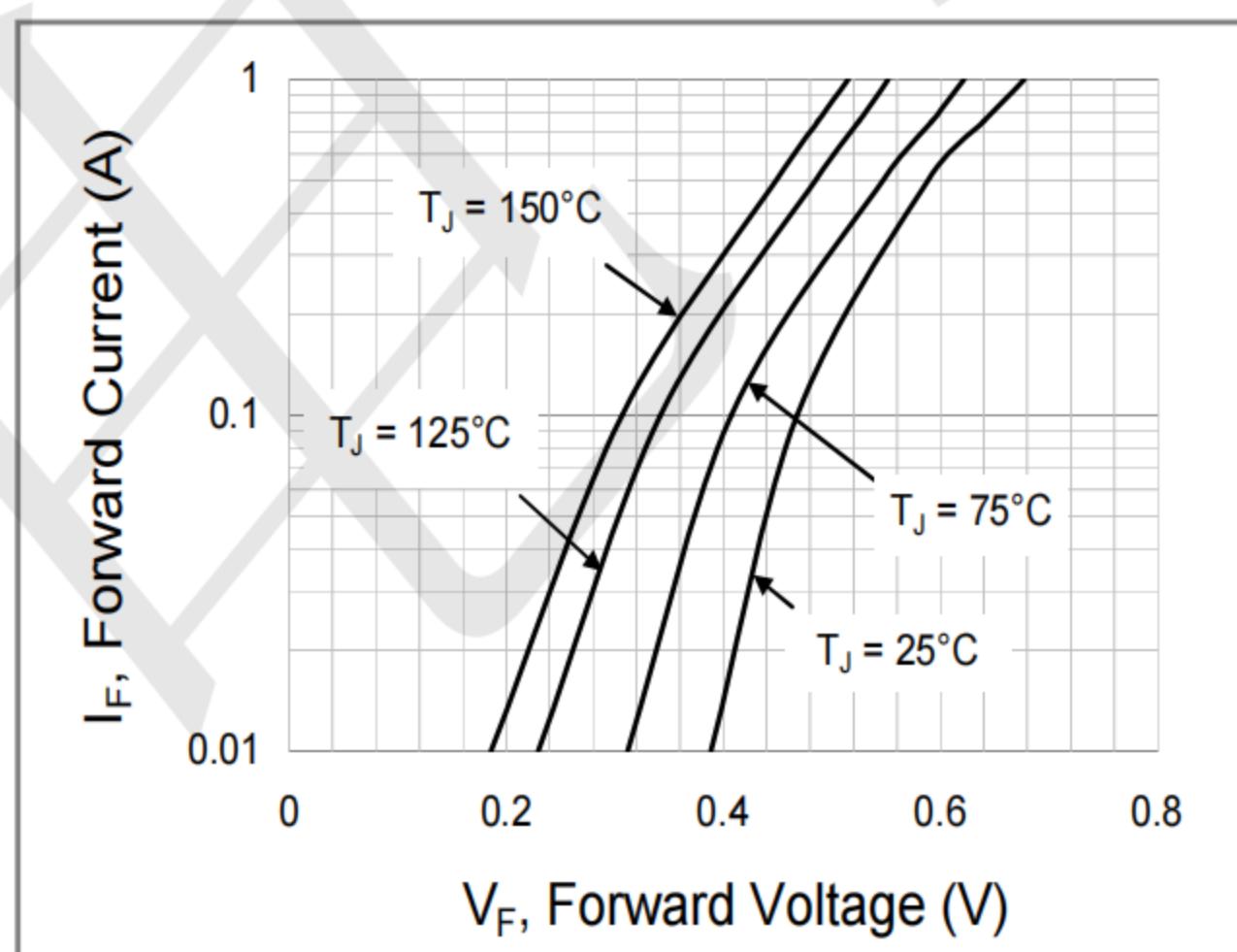
Fig.4 Typical Forward Characteristics
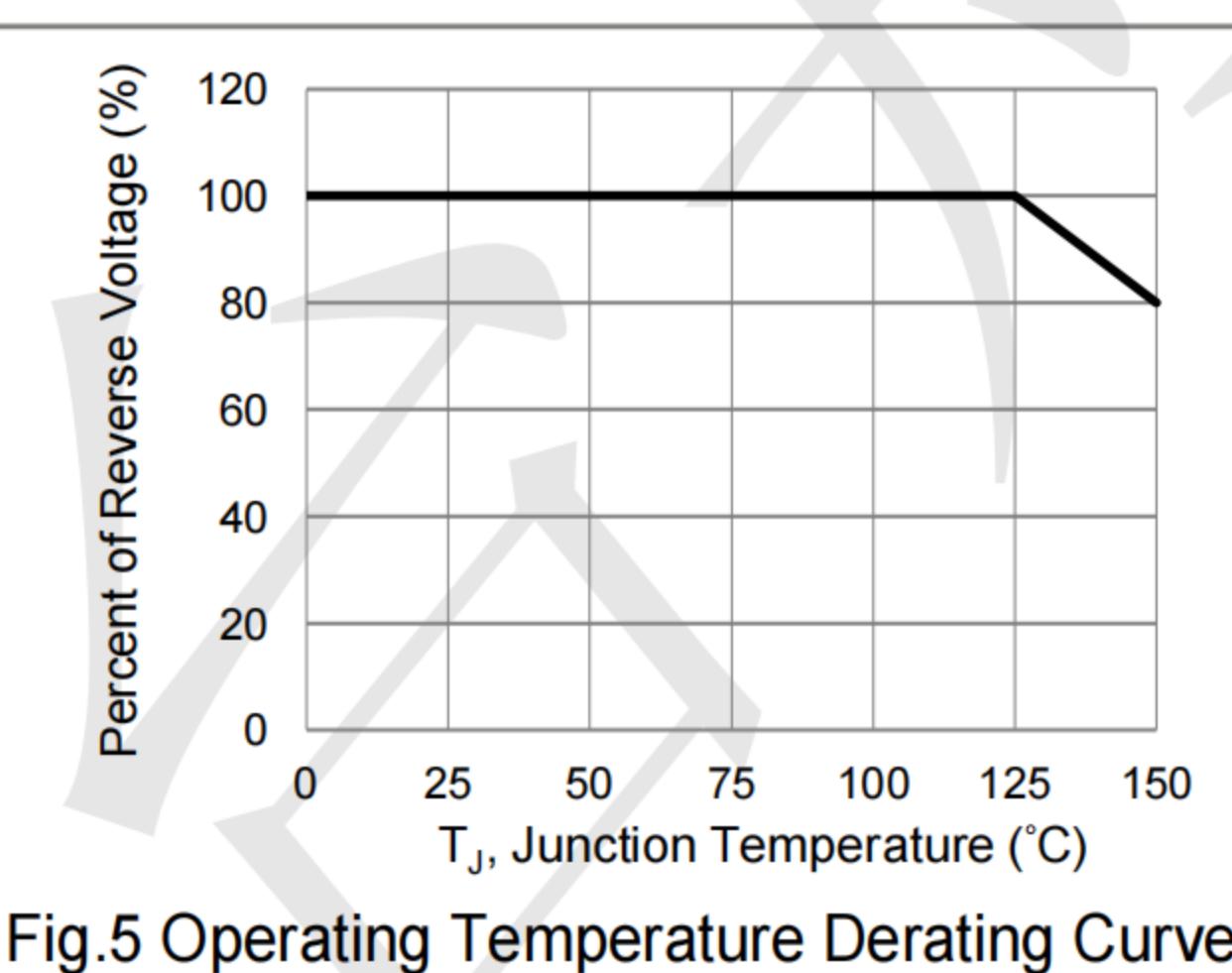
Fig.5 Operating Temperature Derating Curve

Package Outline Dimensions: SOD123FL
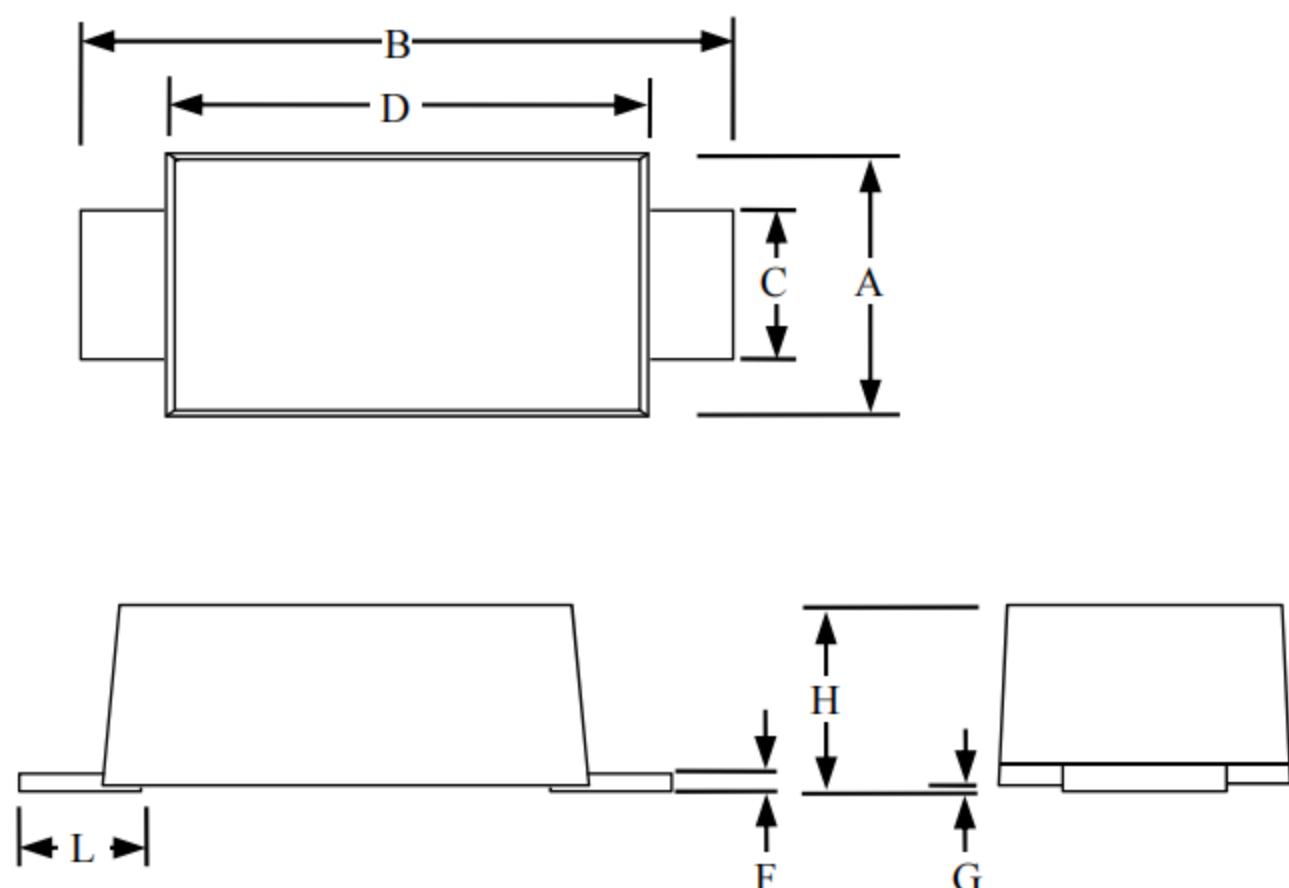
| Dimension | SOD-123FL | | | | | |
| | Inches | | | Millimeters | | |
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.059		0.079	1.5		2
B	0.134		0.154	3.4		3.9
C	0.028		0.047	0.7		1.2
D	0.098		0.114	2.5		2.9
F	0.002		0.01	0.05		0.26
G	-		0.004	-		0.1
H	0.037		0.053	0.95		1.35
L	0.014		0.035	0.35		0.9