

Features

- General rectification
- Low V_F ; Low I_R
- High reliability

Applications

- surface mount schottky barrier rectifier

Ordering Information

- Shipping Qty:3000/7inch Tape& Reel



SOD123

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	TPB1A30-123	TPB1A40-123	Units
Peak Repetitive Reverse Voltage	V_{RRM}	30	40	V
RMS Reverse Voltage	V_{RMS}	21	28	V
Maximum Average Forward Output Current	$I_{F(AV)}$	1		A
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I_{FSM}	10		A

Thermal Characteristics

Parameter	Symbol	TPB1A30-123/TPB1A40-123	TPB1A30-123/TPB1A40-123	Units
Power Dissipation	P_D	500	250	mW
Typical Thermal Resistance per leg	$R_{\theta JA}^*$	200	400	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	125		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150		$^\circ\text{C}$

* Part mounted on FR-4 board with recommended pad layout

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

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=1\text{A}$ TPB1A30-123	-	-	0.55	V
		$I_F=1\text{A}$ TPB1A40-123	-	-	0.60	
		$I_F=3\text{A}$ TPB1A30-123	-	-	0.875	
		$I_F=3\text{A}$ TPB1A40-123	-	-	0.90	
Maximum Peak Reverse Current	I_R^{**}	$V_R=30\text{V}$ TPB1A30-123 $V_R=40\text{V}$ TPB1A40-123	-	-	1	mA
Capacitance Between Terminals	C_T	$V_R=4\text{V}, f=1\text{MHz}$	-	39	120	pF

*Pulse width $\leq 380\ \mu\text{s}$, Duty cycle $< 2\%$
**pulse test, $t_p \leq 5\text{ms}$

Typical Electrical Characteristic Curves

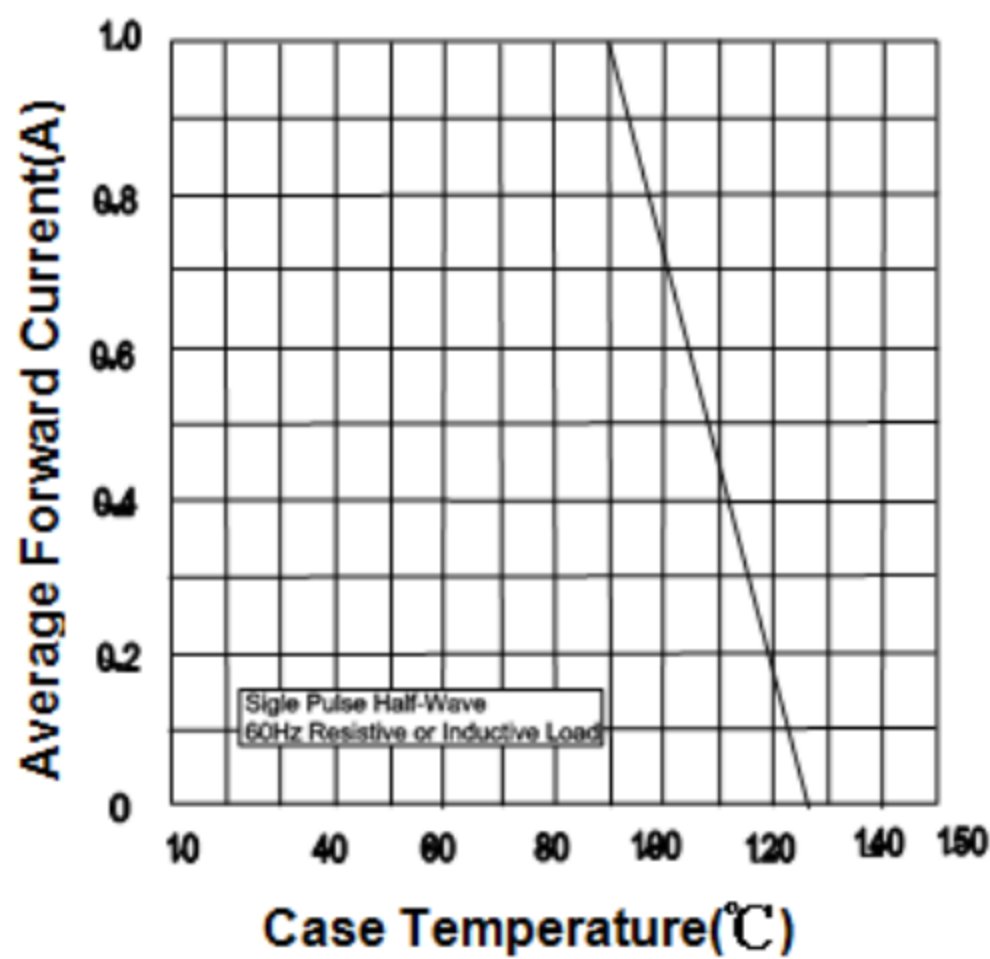


Fig.1 Forward Current Derating Curve

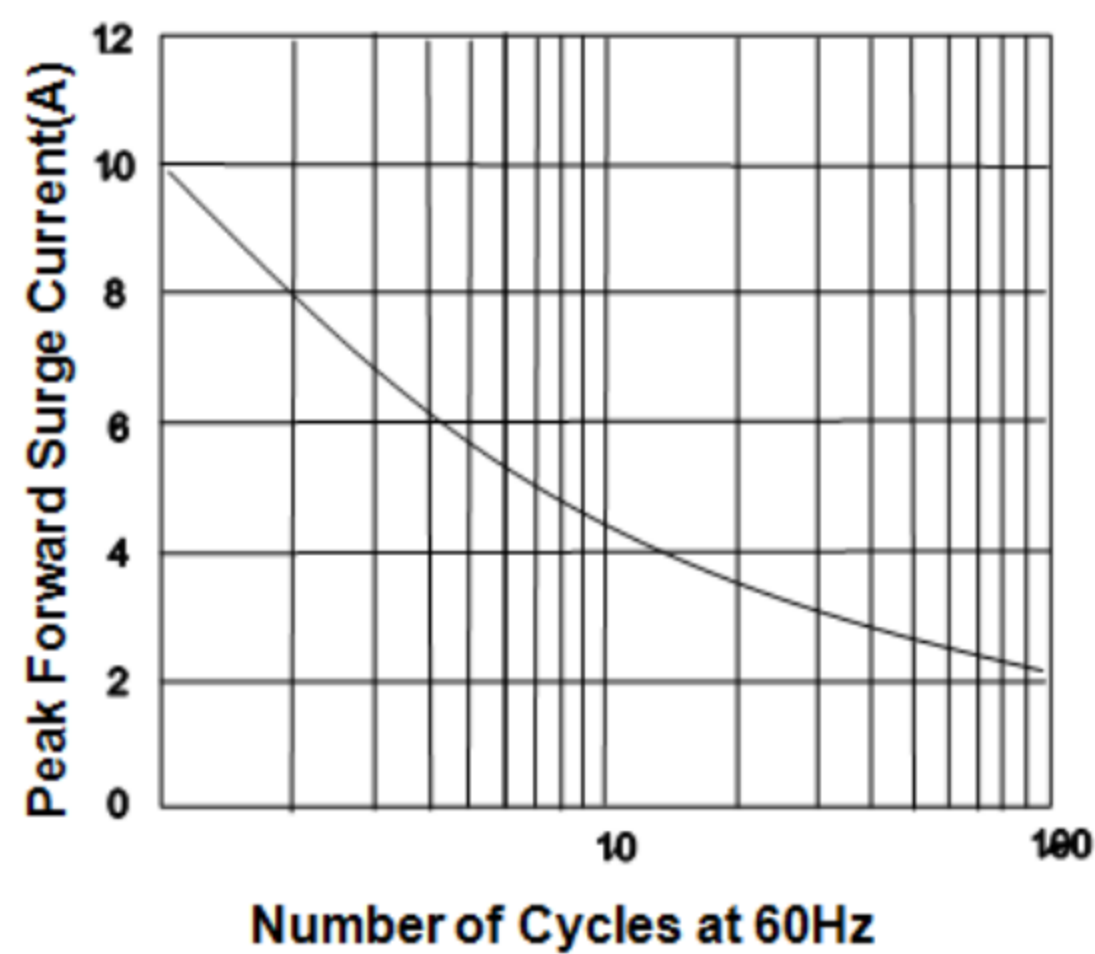


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

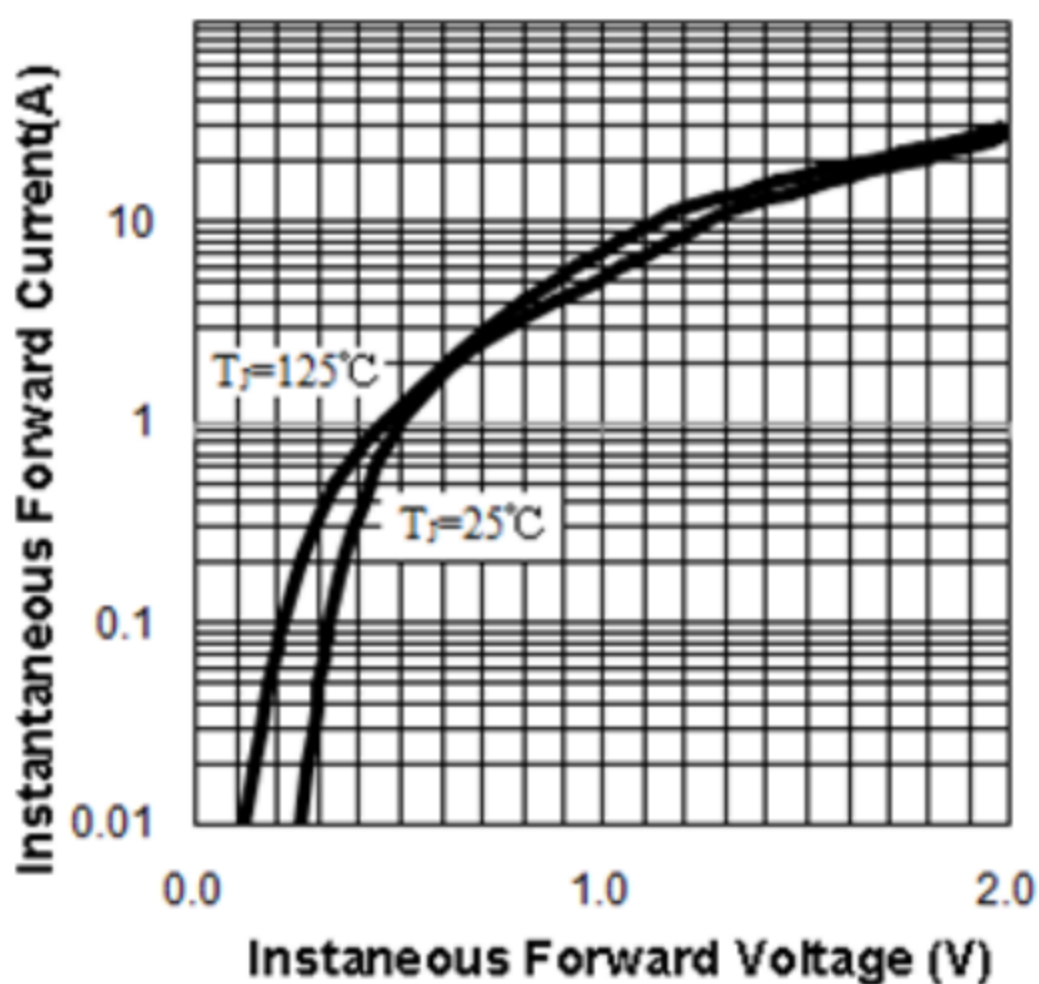


Fig.3 Typical Instantaneous Forward Characteristics

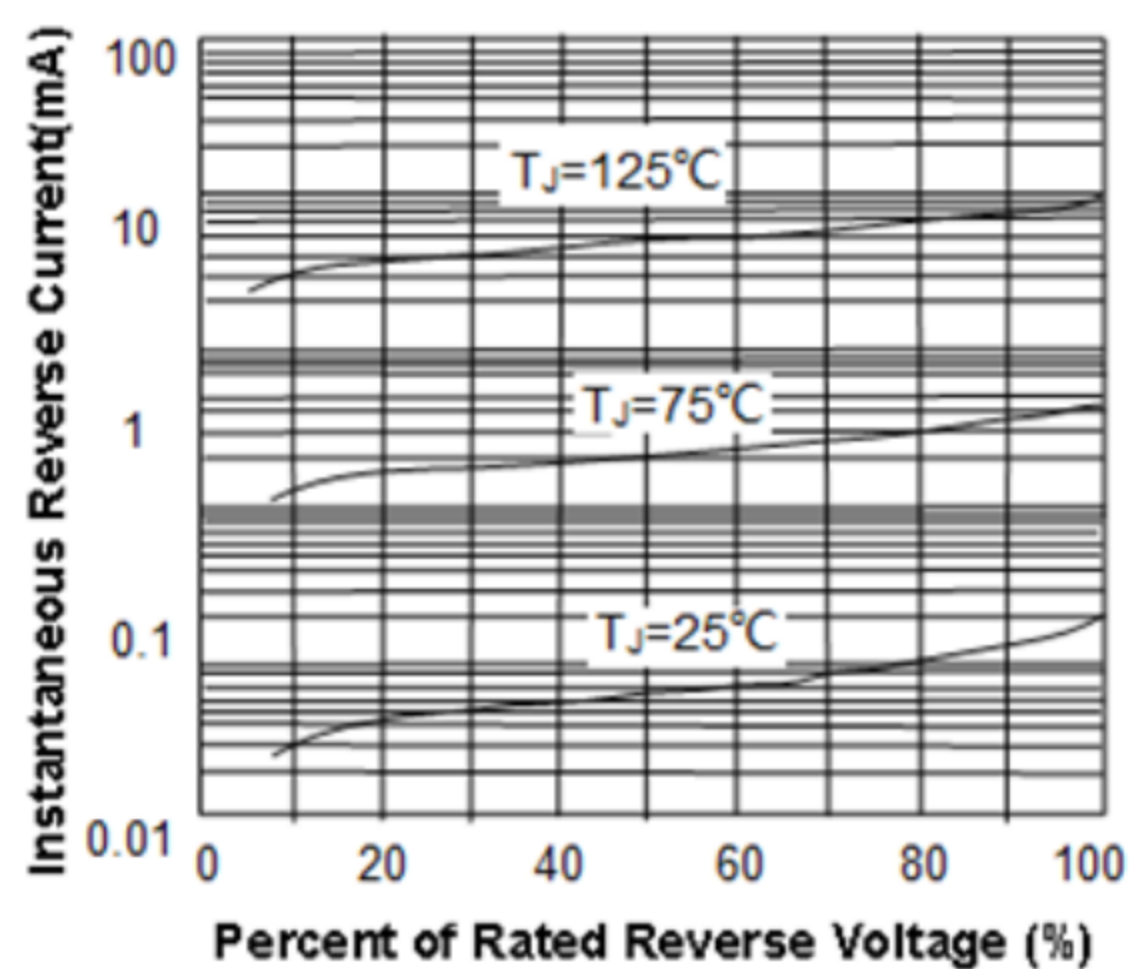
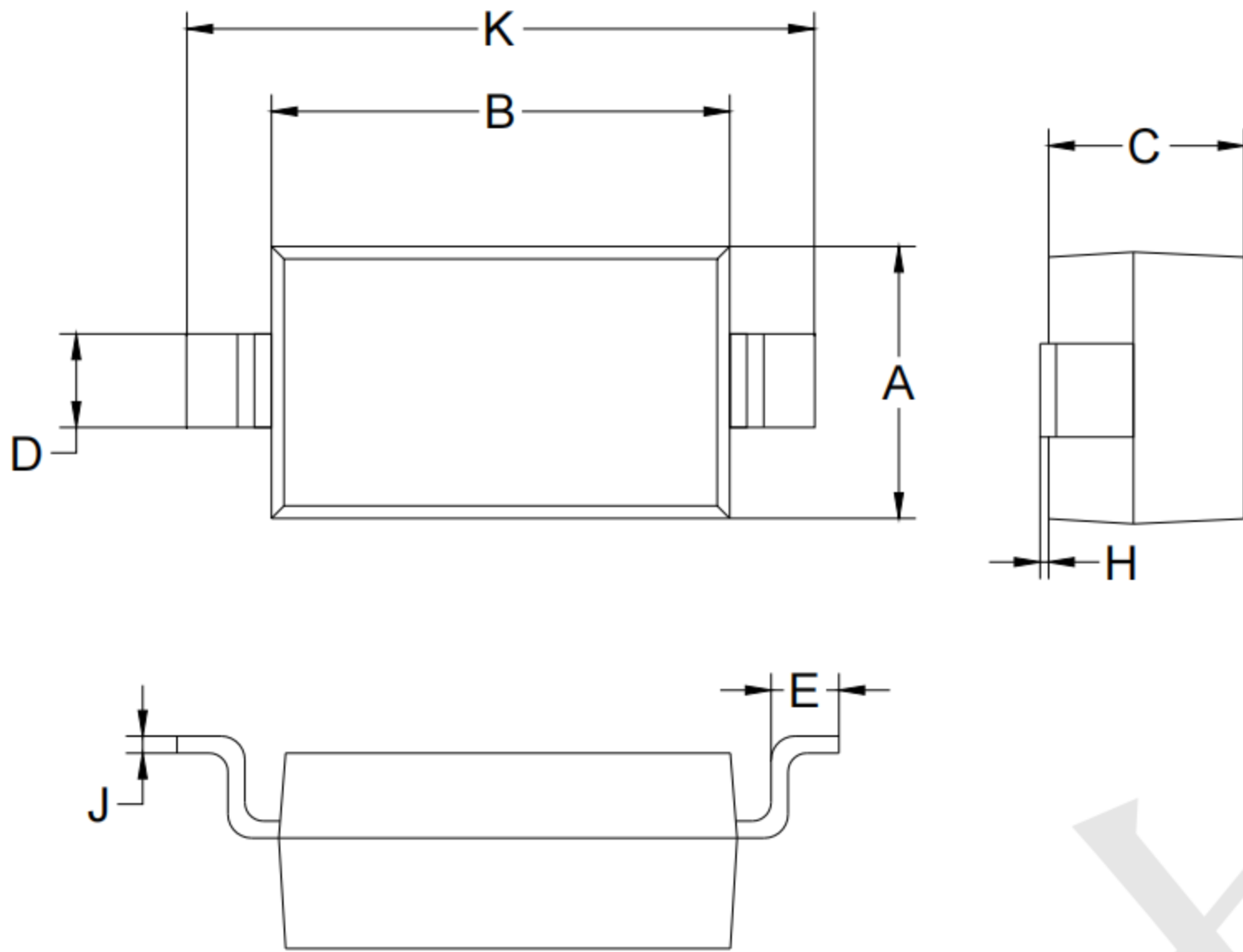


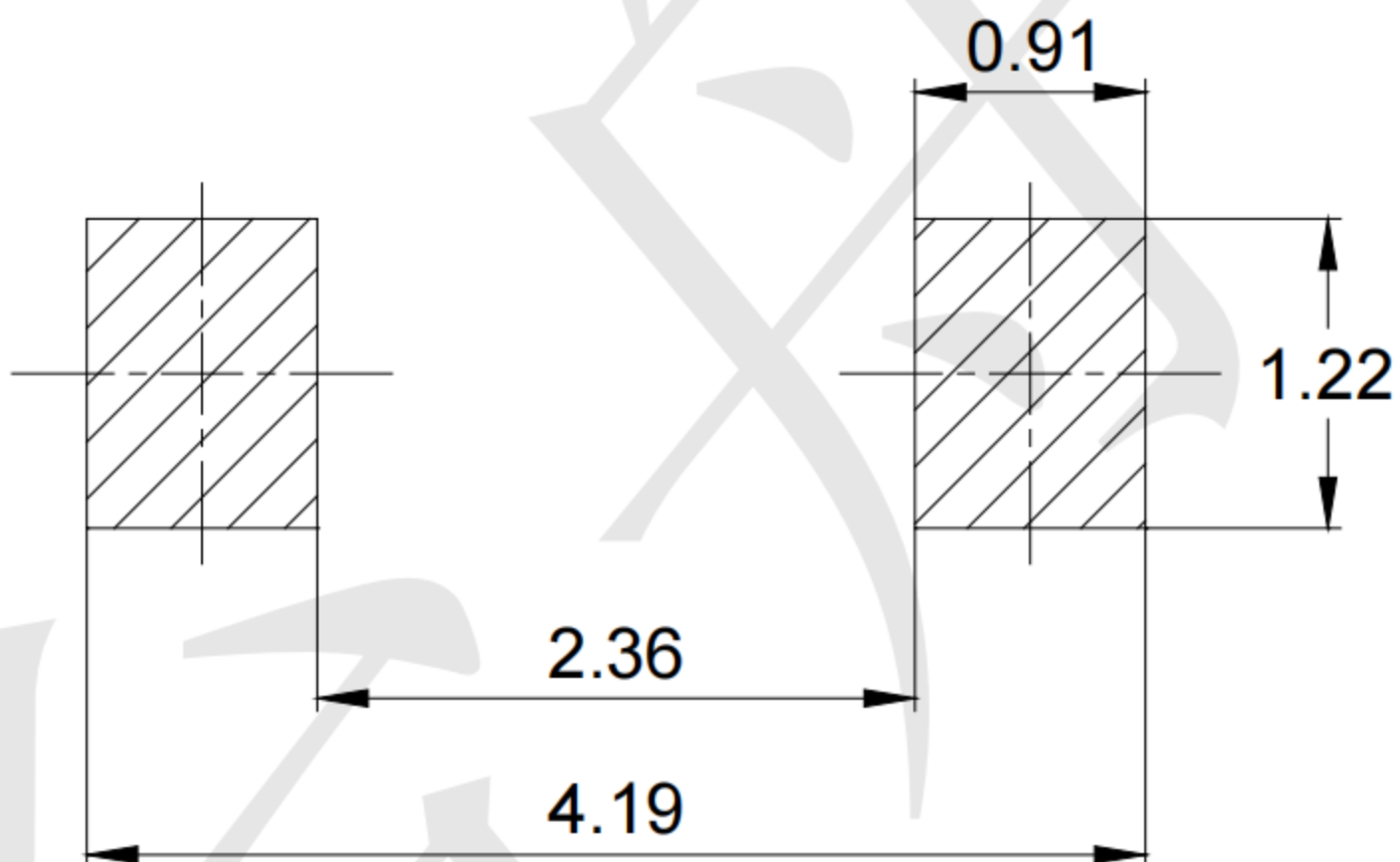
Fig.4 Typical Reverse Characteristics

Outline Drawing - SOD123 (unit: mm)



SOD-123		
Dim	Min	Max
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Mounting Pad Layout-SOD123 (unit: mm)



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