

Vishay Semiconductors

Thermal Characteristics

 $T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	300 ¹⁾	K/W
Junction temperature		T_j	125 ¹⁾	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 150	$^{\circ}\text{C}$

¹⁾ Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics

 $T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$	SD101AW-V	$V_{(BR)}$	60			V
		SD101BW-V	$V_{(BR)}$	50			V
		SD101CW-V	$V_{(BR)}$	40			V
Leakage current	$V_R = 50\text{ V}$	SD101AW-V	I_R			200	nA
	$V_R = 40\text{ V}$	SD101BW-V	I_R			200	nA
	$V_R = 30\text{ V}$	SD101CW-V	I_R			200	nA
Forward voltage drop	$I_F = 1\text{ mA}$	SD101AW-V	V_F			410	mV
		SD101BW-V	V_F			400	mV
		SD101CW-V	V_F			390	mV
	$I_F = 15\text{ mA}$	SD101AW-V	V_F			1000	mV
		SD101BW-V	V_F			950	mV
		SD101CW-V	V_F			900	mV
Diode capacitance	$V_R = 0\text{ V}$, $f = 1\text{ MHz}$	SD101AW-V	C_D			2	pF
		SD101BW-V	C_D			2.1	pF
		SD101CW-V	C_D			2.2	pF
Reverse recovery time	$I_F = I_R = 5\text{ mA}$, recover to $0.1\text{ }I_R$		t_{rr}			1	ns

Typical Characteristics

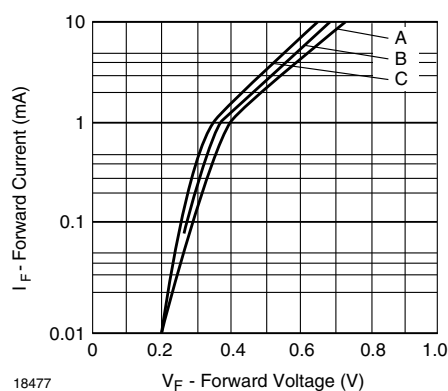
 $T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified


Figure 1. Typical Variation of Forward Current vs. Forward Voltage

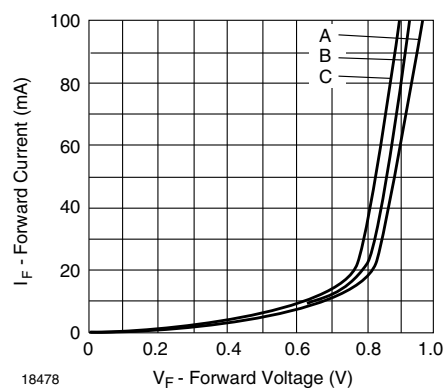


Figure 2. Typical Forward Conduction Curve

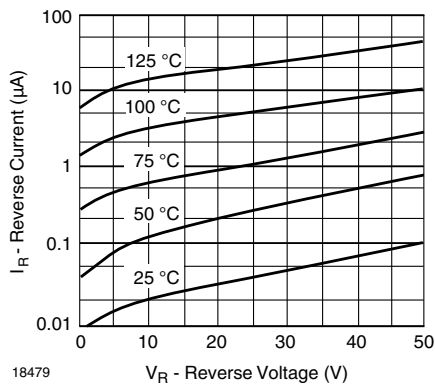


Figure 3. Typical Variation of Reverse Current at Various Temperatures

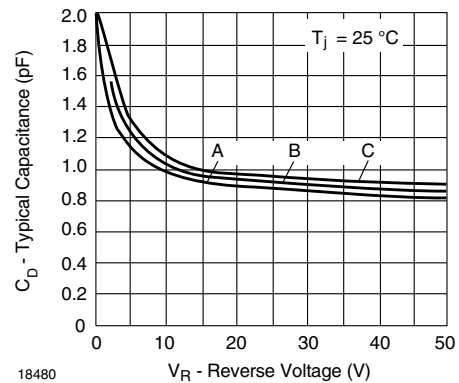
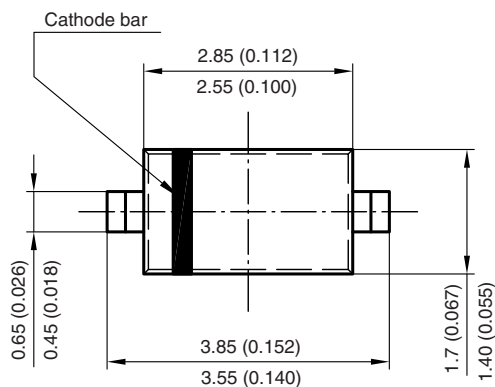
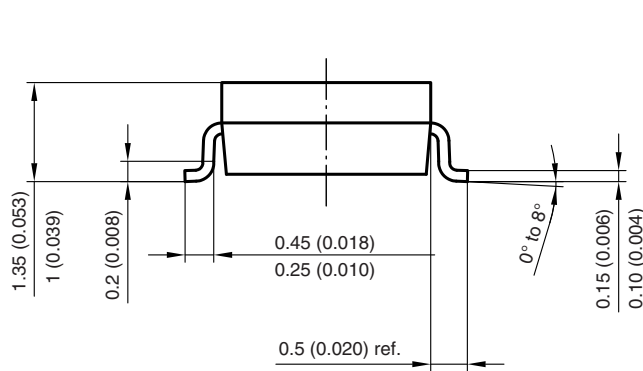
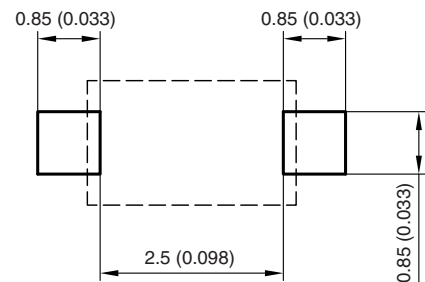


Figure 4. Typical Capacitance Curve as a Function of Reverse Voltage

Package Dimensions in millimeters (inches): SOD-123



Mounting Pad Layout



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