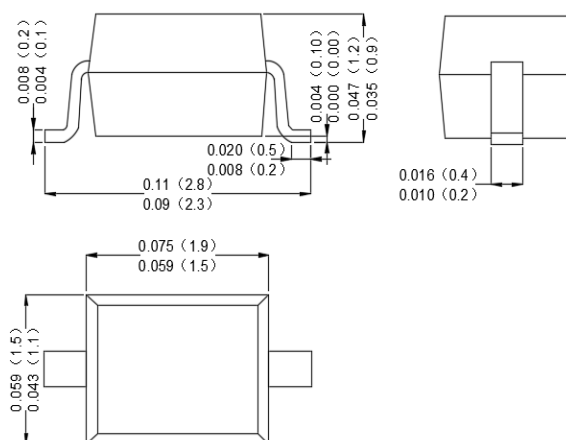




### Features

- Low turn-on voltage low capacitance
- Ultrafast switching
- Ideal for single or double, UHF balanced mixer, modulators and phase detectors

### SOD-323



Dimensions in inches and (millimeters)

### Mechanical Data

- Case: Molded Plastic, SOD-323
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026
- Mounting Position : Any.
- Marking: FO

### Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	4	V
Forward Current	$I_F$	30	mA
Power Dissipation	$P_{tot}$	200	mW
Thermal resistance junction to ambient air <sup>1)</sup>	$R_{\theta JA}$	500	°C/W
Junction Temperature	$T_J$	125	°C
Storage Temperature	$T_{stg}$	- 65 to + 150	°C

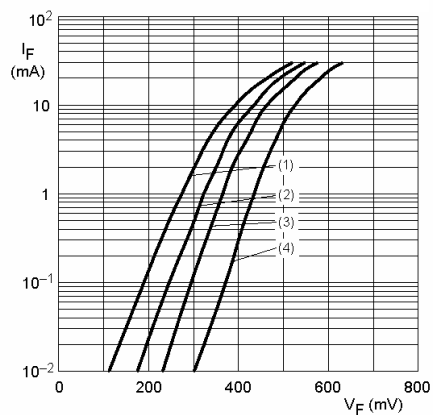
<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

### Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10 \mu A$	$V_{(BR)R}$	4	-	V
Maximum Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	-	600	mV
Reverse Leakage Current at $V_R = 3 \text{ V}$ at $V_R = 3 \text{ V}$ , $T_a = 60 \text{ °C}$	$I_R$	- -	0.25 1.25	$\mu A$
Diode Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_D$	-	1	pF

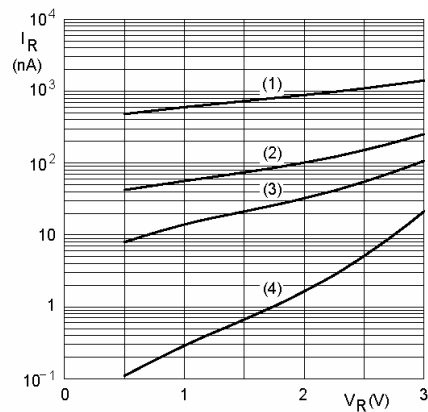


### Rating And Characteristic Curves



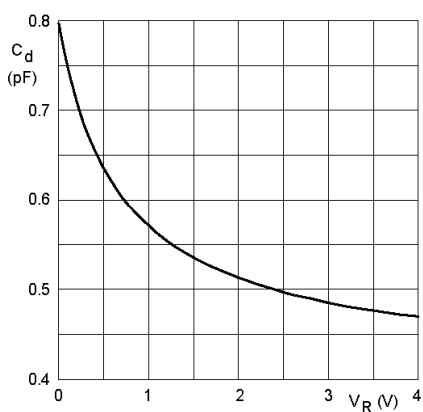
- (1)  $T_{amb} = 100\text{ }^{\circ}\text{C.}$
- (2)  $T_{amb} = 60\text{ }^{\circ}\text{C.}$
- (3)  $T_{amb} = 25\text{ }^{\circ}\text{C.}$
- (4)  $T_{amb} = -40\text{ }^{\circ}\text{C.}$

Fig.2 Forward current as a function of forward voltage; typical values.



- (1)  $T_{amb} = 100\text{ }^{\circ}\text{C.}$
- (2)  $T_{amb} = 60\text{ }^{\circ}\text{C.}$
- (3)  $T_{amb} = 25\text{ }^{\circ}\text{C.}$
- (4)  $T_{amb} = -40\text{ }^{\circ}\text{C.}$

Fig.3 Reverse current as a function of reverse voltage; typical values.



$f = 1\text{ MHz; } T_{amb} = 25\text{ }^{\circ}\text{C.}$

Diode capacitance as a function of reverse voltage; typical values.



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