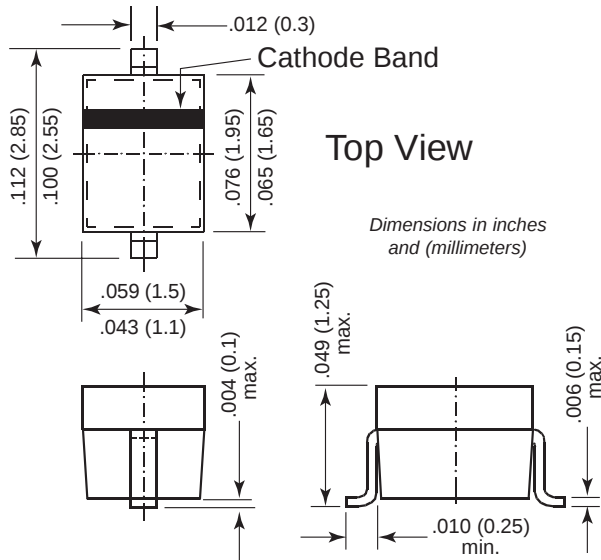


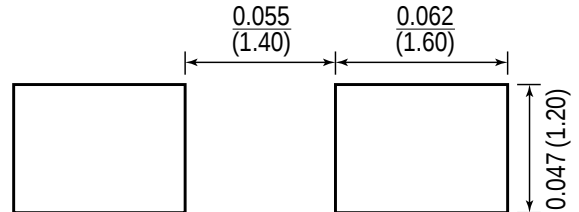


Schottky Diode

SOD-323



Mounting Pad Layout



Mechanical Data

Case: SOD-323 plastic case

Weight: approximately 0.004g

Marking Code: S1

Packaging Codes/Options:

D5/10K per 13" reel (8mm tape), 30K/box

D6/3K per 7" reel (8mm tape), 30K/box

Features

- Low turn-on voltage • Fast switching
- Microminiature plastic package
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge.
- Ideal for protection of MOS devices, steering, biasing, and coupling diodes for fast switching and low logic level applications.

Maximum Ratings and Thermal Characteristics (T_C = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V _R	30	V
Forward Current	I _F	100	mA
Forward Surge Current, t _p = 10 ms	I _{FSM}	0.75	A
Power Dissipation T _C = 25°C	P _{tot}	250 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	500	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _S	-65 to +150	°C

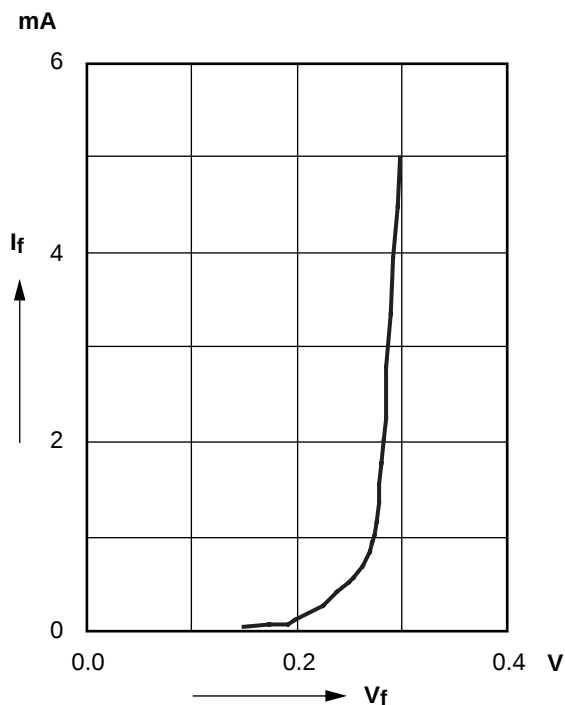
Electrical Characteristics (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	BV _R	I _R = 100μA	30	—	—	V
Leakage Current	I _R	V _R = 25V	—	—	1000	nA
Forward Voltage	V _F	I _F = 2.0mA	—	300	—	mV
		I _F = 15mA	—	360	—	
		I _F = 50mA	—	470	550	
		I _F = 100mA	—	580	800	
Junction Capacitance	C _{tot}	V _R = 10V, f = 1.0MHz	—	—	7.0	pF

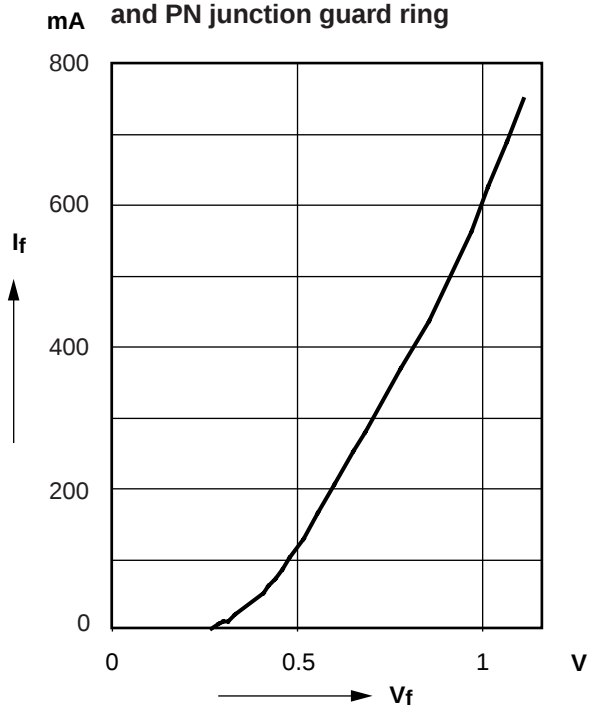
Note: (1) Valid provided that electrodes are kept at ambient temperature

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

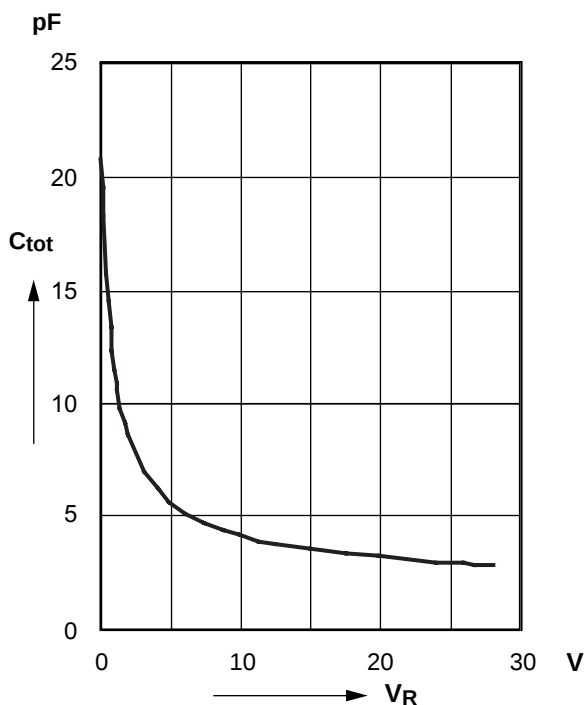
Typical variation of I_f for primary conduction thru the Schottky barrier



Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical capacitance versus reverse voltage



Typical variation of reverse current at various temperature

