

# SURFACE MOUNT FAST SWITCHING DIODE

#### **Features**

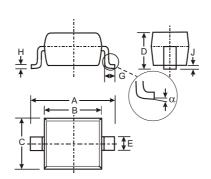
- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material UL Recognition Flammability Classification 94V-O

#### **Mechanical Data**

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 grams (approx.)
- Marking: A3







SOD-323					
Dim	Min	Max			
Α	2.30	2.70			
В	1.60	1.80			
С	1.20	1.40			
D	1.05 Typical				
E	0.25	0.35			
G	0.20	0.40			
Н	0.10	0.15			
J	0.05 Typical				
α	0°	8°			
All Dimensions in mm					

## Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage		VRM	100	٧
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		VRRM VRWM VR	75	V
RMS Reverse Voltage		VR(RMS)	53	٧
Forward Continuous Current (Note 1)		lғм	500	mA
Average Rectified Output Current (Note 1)		lo	250	mA
, ·	t = 1.0µs t = 1.0s	IFSM	4.0 2.0	А
Power Dissipation (Note 1)		Pd	200	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)		$R_{ heta}JA$	625	K/W
Operating and Storage Temperature Range		Тj, Тsтg	-65 to +150	°C

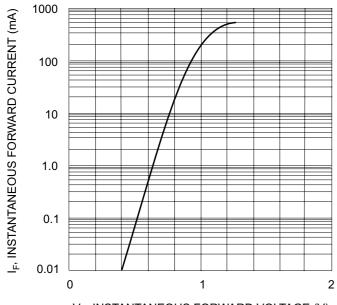
### Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic		Symbol	Value	Unit
Forward Voltage Drop	@ IF = 5.0mA @ IF = 100mA	VFM	0.72 1.0	V
Peak Reverse Leakage Current	@ VR = 75V	lгм	2.5	μΑ
Junction Capacitance (VR = 0V DC, f = 1.0MHz)		Cj	4.0	pF
Reverse Recovery Time (Note 2)		t	4.0	nS

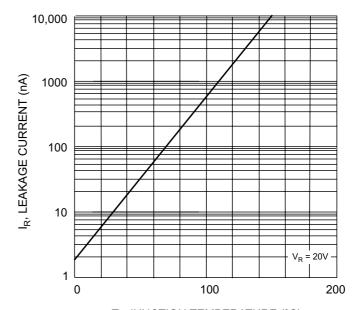
Note: 1. Valid provided that terminals are kept at ambient temperature.

<sup>2.</sup> Measured with IF = IR = 10mA, IRR = 0.1 x IR, RL = 100 $\Omega$ .





V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 1 Forward Characteristics



 $T_{j}$ , JUNCTION TEMPERATURE (°C) Fig. 2 Leakage Current vs Junction Temperature