

### Surface Mount Switching Diode

**(Pb)** Lead(Pb)-Free

#### Features:

- \*High Speed  $\leq 4\text{ns}$
- \*Low Rever Leakage Current
- \*Small Outline Surface Mount SOD-323 Package

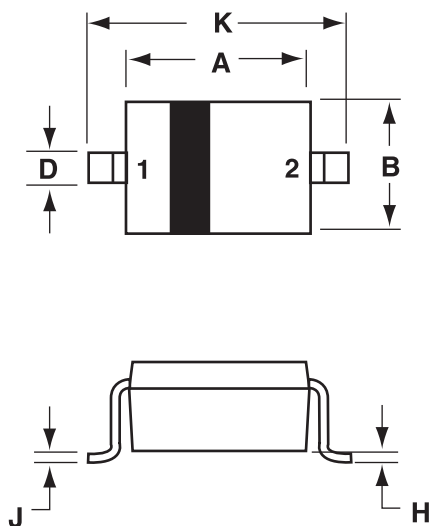
**SWITCHING DIODE**  
**100m AMPERES**  
**100VOLTS**



**SOD-323**

### SOD -323 Outline Dimensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
A	1.60	1.80
B	1.15	1.35
C	0.80	1.00
D	0.25	0.40
E	0.15REF	
H	0.00	0.10
J	0.089	0.377
K	2.30	2.70

**PIN 1.CATHODE**  
**2.ANODE**

# 1SS 355



## Maximum Ratings

Rating	Symbol	Value	Unit
Reverse Voltage	VR	100	Vdc
Forward Current	IF	100	mAdc
Peak Forward Surge Current	IFM(Surge)	500	mAdc

## Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board TA=25°C Derate Above 25°C	PD	225 1.8	mW mW/°C
Thermal Resistance, Junction to Ambient	RθJA	556	°C/W
Total Device Dissipation Alumina Substrate,(2)TA=25°C Derate Above 25°C	PD	300 2.4	mW mW/°C
Thermal Resistance, Junction to Ambient	RθJA	417	°C/W
Junction and Storage Temperature	TJ, Tstg	-55 to + 150	°C

## Electrical Characteristics (TA=25°C Unless Otherwise note)

Characteristics	Symbol	Min	Max	Unit
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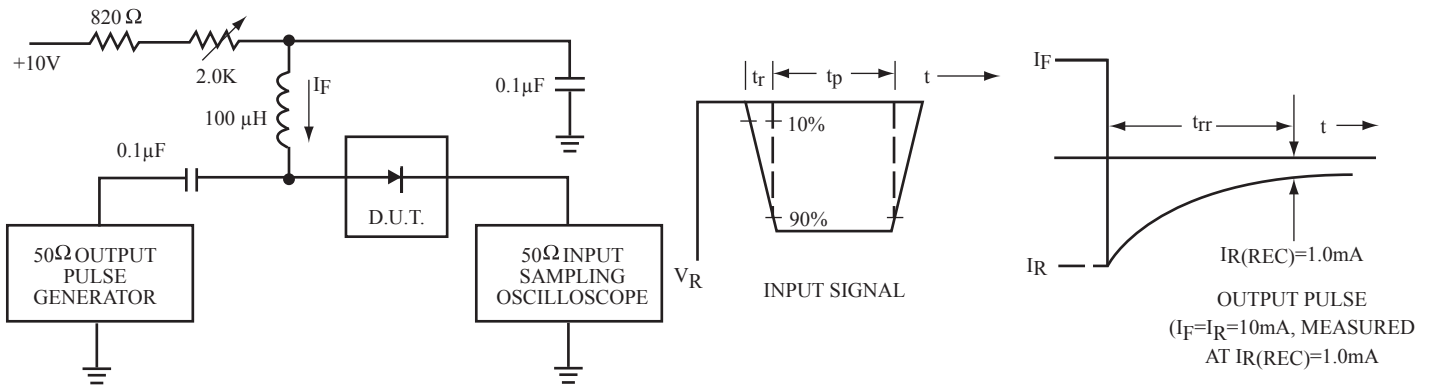
## Off Characteristics

Reverse Breakdown Voltage (IR=100μAdc)	V(BR)	100	—	Vcc
Forward Voltage(IF=100mAdc)	VF	—	1200	mVdc
Reverse Voltage Leakage Current (VR=80Vdc)	IR	—	0.1	μAdc
Diode Capacitance (VR=0.5V, f=1.0MHz)	CT	—	3.5	pF
Reverse Recover Time (IF=IR=10mAdc)	trr	—	4.0	ns

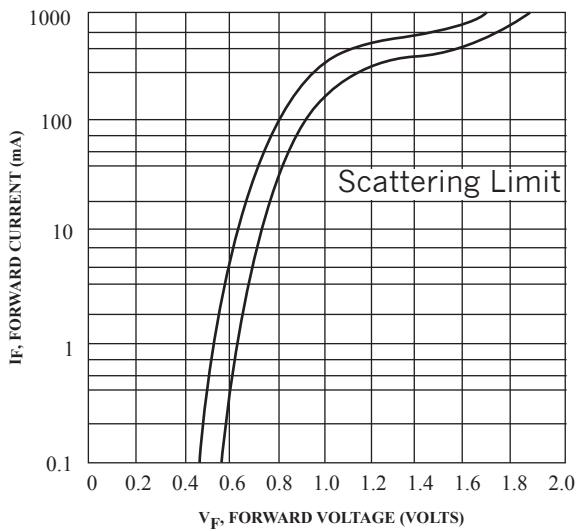
1. FR-5=1.0x0.75x0.062 in    2. Alumina=0.4x0.3x0.024 in. 99.5% alumina.

## Device Marking

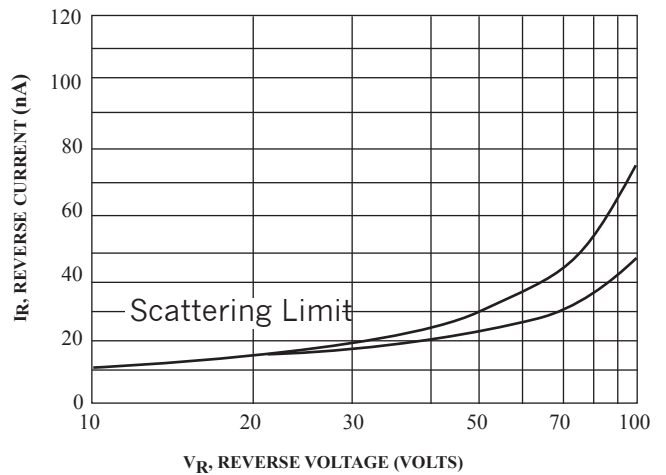
Item	Marking	Equivalent Circuitdiagram
1SS 355	5D	



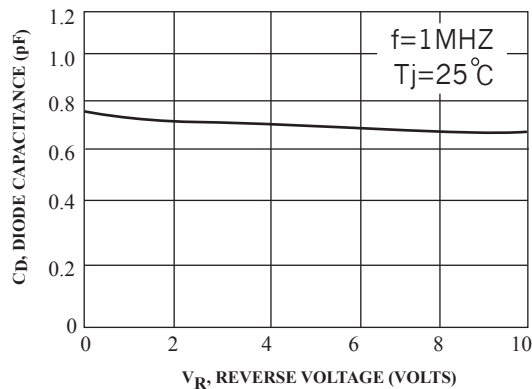
**Figure 1. Recovery Time Equivalent Test Circuit**



**Figure 2. Forward Voltage**



**Figure 3. Leakage Current**



**Figure 4. Capacitance**