WEITRON

1SS355

Surface Mount Switching Diode

Lead(Pb)-Free

SWITCHING DIODE
100m AMPERES
100VOLTS

Features:

*High Speed ≤ 4ns

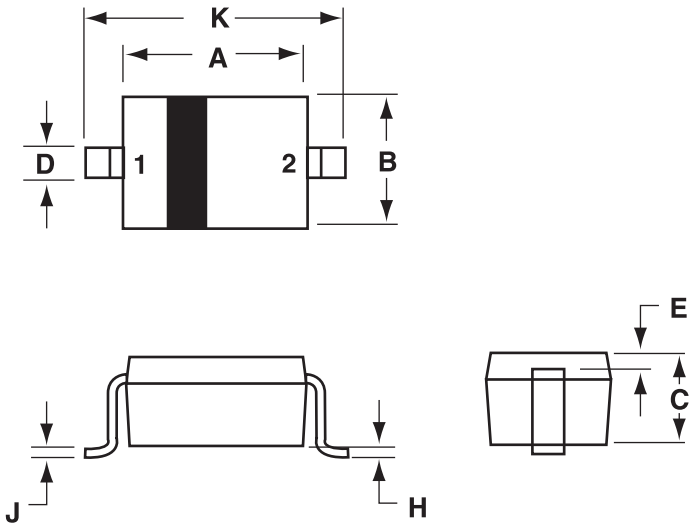
*Low Rever Leakage Current

*Small Outline Surface Mount SOD-323 Package

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

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Maximum Ratings

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	100	Vdc
Forward Current	I_F	100	mAdc
Peak Forward Surge Current	$I_{FM(Surge)}$	500	mAdc

Thermal Characteristics

Characterictics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board T_A=25°C Derate Above 25°C	P_D	225 1.8	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate,(2)T_A=25°C Derate Above 25°C	P_D	300 2.4	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	TJ, Tstg	-55 to + 150	°C

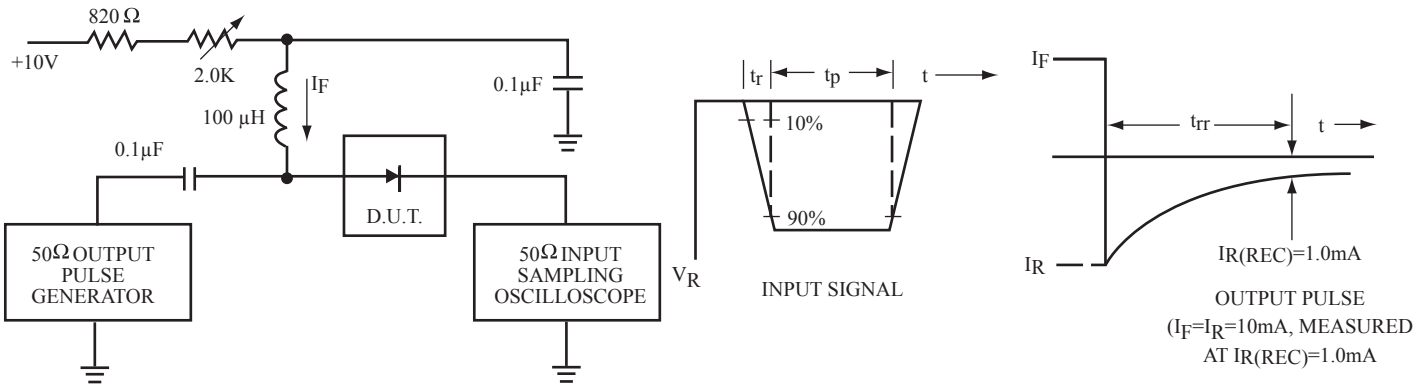
Electrical Characteristics (T_A=25°C Unless Otherwise note)

Characterictics	Symbol	Min	Max	Unit
Off Characteristics				
Reverse Breakdown Votalge (IR=100μAdc)	V(BR)	100	–	Vcc
Forward Voltage(IF=100mAdc)	V_F	–	1200	mVdc
Reverse Voltage Leakage Current (V_R=80Vdc)	I_R	–	0.1	μAdc
Diode Capacitance (V_R=0.5V, f=1.0MHz)	C_T	–	3.5	pF
Revarse Recover Time (I_F=I_R=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	Eqivalent Circuitdiagram
1SS 355	5D	



Notes:1. A 2.0 kΩ variable resistor for a Forward Current (I_F) 0f 10 mA

2. Input pules is adjusted so I_R(peak) is equal to 10 mA

3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

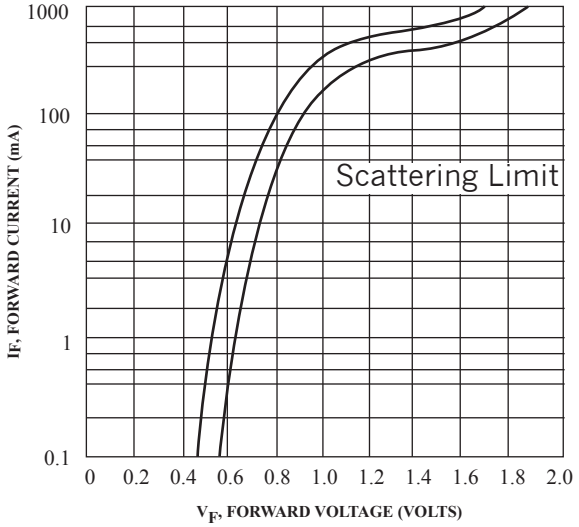


Figure 2. Forward Voltage

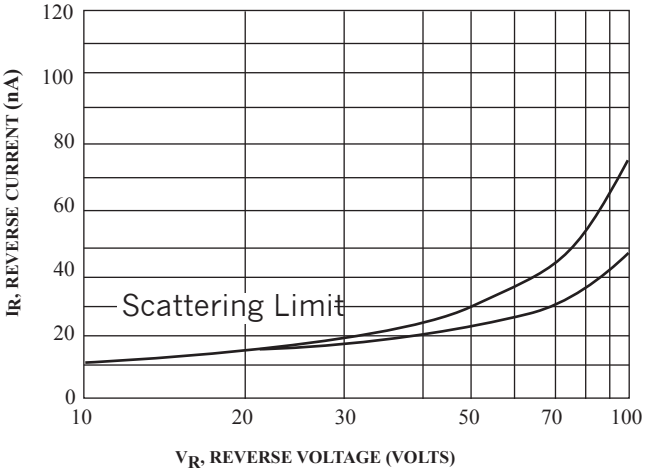


Figure 3. Leakage Current

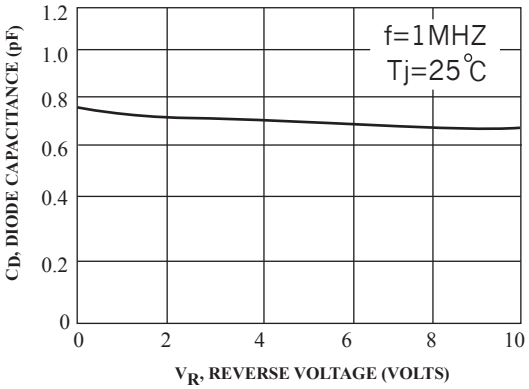


Figure 4. Capacitance