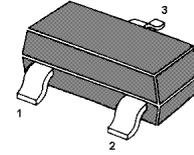
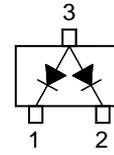




## Silicon Epitaxial Planar Switching Diode

## Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance



Marking Code: A1  
SOT-23 Plastic Package

## Applications

- Ultra high speed switching application

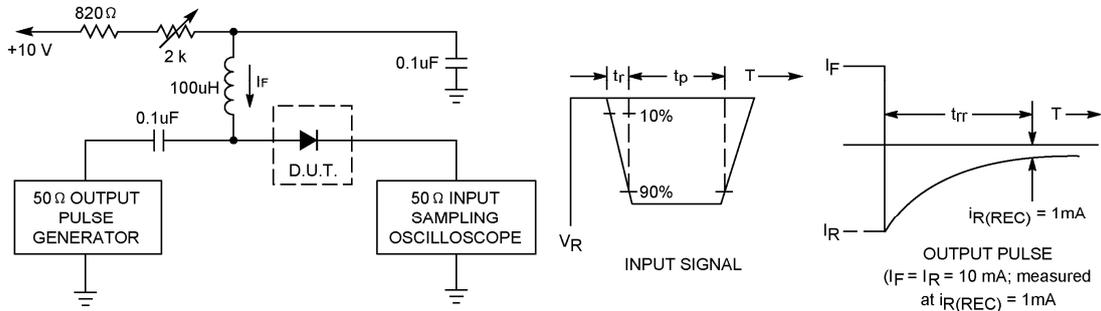
Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	35 75	V
Forward Current	$I_F$	100	mA
Power Dissipation	$P_{tot}$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

Characteristics at  $T_a = 25\text{ }^\circ\text{C}$ 

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$ at $I_F = 50\text{ mA}$ at $I_F = 100\text{ mA}$	$V_F$ $V_F$ $V_F$	- - -	1 1 1.2	V V V
Reverse Current at $V_R = 30\text{ V}$ at $V_R = 50\text{ V}$	$I_R$	- -	100 100	nA
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	35 75	- -	V
Diode Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_T$	-	4	pF
Reverse Recovery Time at $I_F = I_R = 10\text{ mA}$ , $I_{R(REC)} = 1\text{ mA}$	$t_{rr}$	-	4	ns

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- Notes: 1. A 2.0k  $\Omega$  variable resistor adjusted for a Forward Current ( $I_F$ ) of 10mA.  
 2. Input pulse is adjusted so  $I_{R(peak)}$  is equal to 10mA.  
 3.  $t_p \gg t_{rr}$

FIGURE 2. FORWARD VOLTAGE

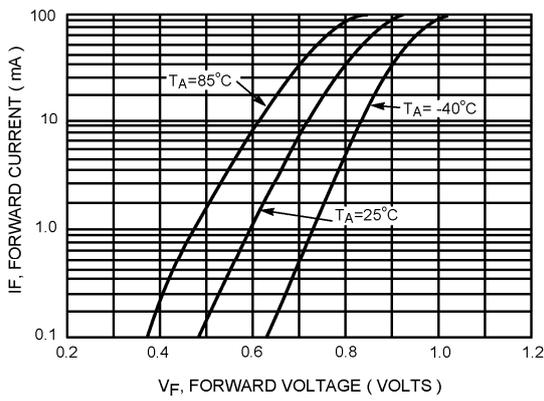


FIGURE 3. LEAKAGE CURRENT

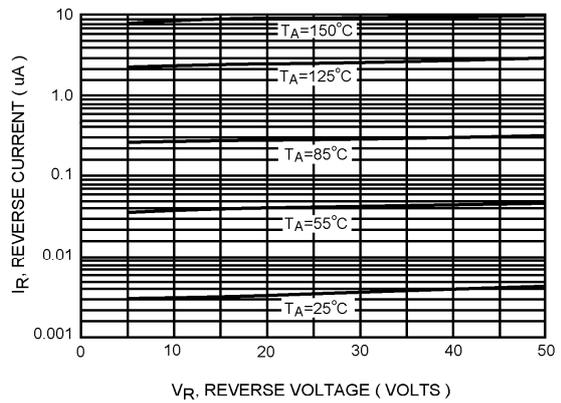


FIGURE 4. CAPACITANCE

