

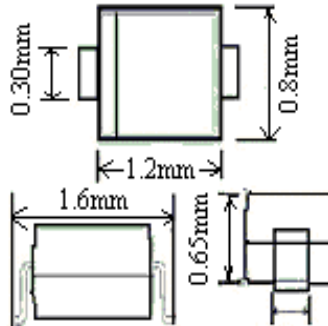


# 200mA SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## Description

## Mechanical Dimensions

BAT54X



SOD-523

Dimensions in mm

### Feature

- \* Low Turn-On Voltage
- \* Fast Switching
- \* Ultra Small Surface mount Package
- \* ESD protection
- \*  Marking JV

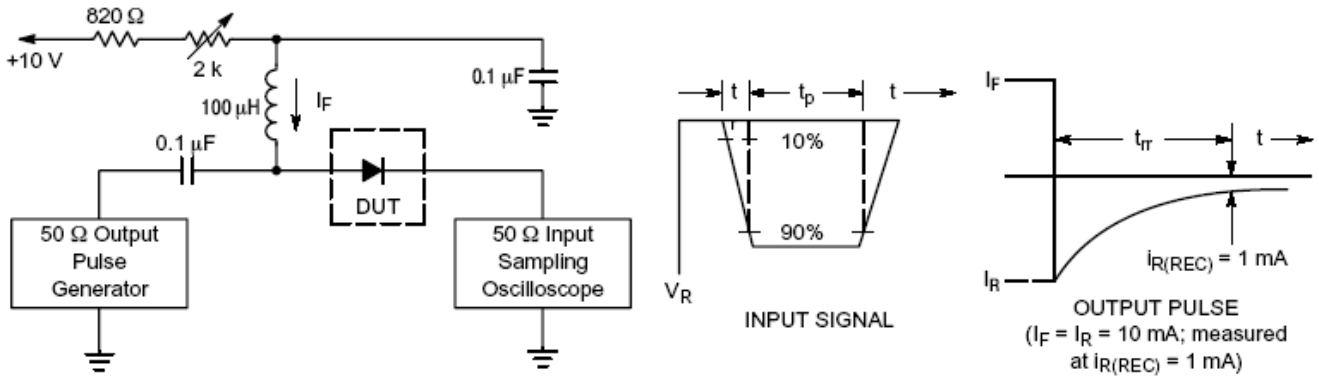
### Max Ratings at Ta=25C Unless Otherwise Specified

Characteristic	Symbol	BAT54X	Unit
Peak Repetitive Reverse Voltage	Vrrm	30	V
working Peak Reverse Voltage	Vrwm	30	V
DC Blocking Voltage	Vdc	30	V
RMS Reverse Voltage	Vr(rms)	21	V
Power Dissipation	Pd	200	mW
Average Rectified Forward Current	Io	100	mA
Forward Continuous Current	If	200	mA
Repetitive Peak Forward Surge Current	Ifrm	300	mA
Forward Surge Current @t<1.0s	Ifsm	600	mA
Operating & storage Temp. Range	Tj/Ts	-65~+150	C
Max Forward Voltage	Vf	240 @ 0.1mA, 400 @ 10mA 500 @ 30mA, 800 @100mA	mV
Reverse Leakage Current	Ir	2	uA
Reverse Recovery Time @ If=10mA, Ir=10~1.0mA, RL=100ohm	Trr	5	nS
Typical Junction Capacitance Vr=1.0V, f=1.0MHz	Cj	10	pF
Thermal Resistance Junction to Ambient Air	Rthja	635	K/W

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

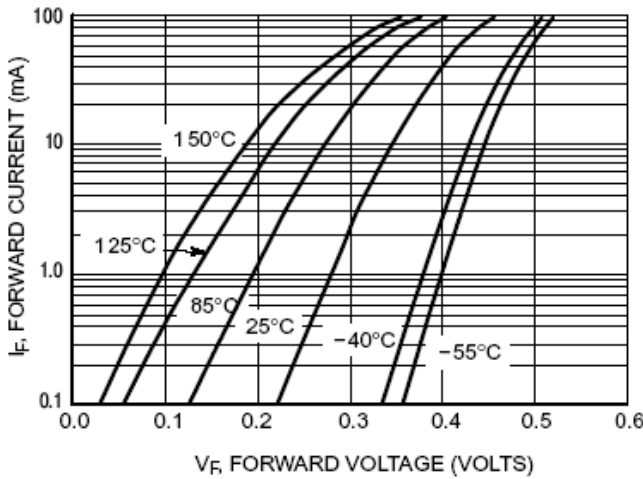
2. T<200us, duty cycle<2%

**Typical Characteristics**

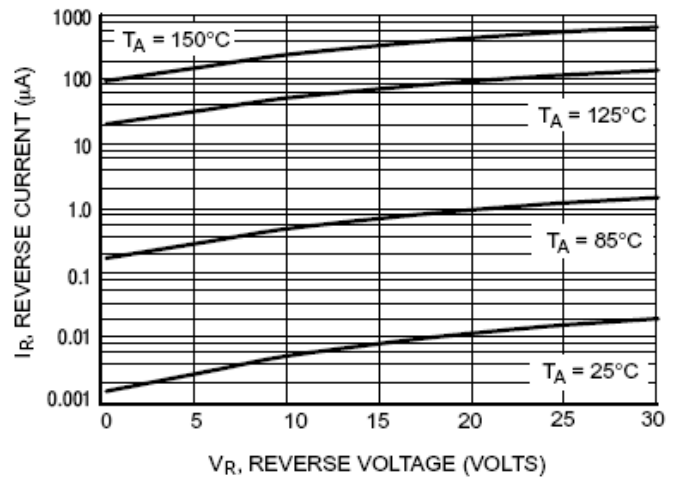


- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10 mA.
- 2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10 mA.
- 3.  $t_p \gg t_r$

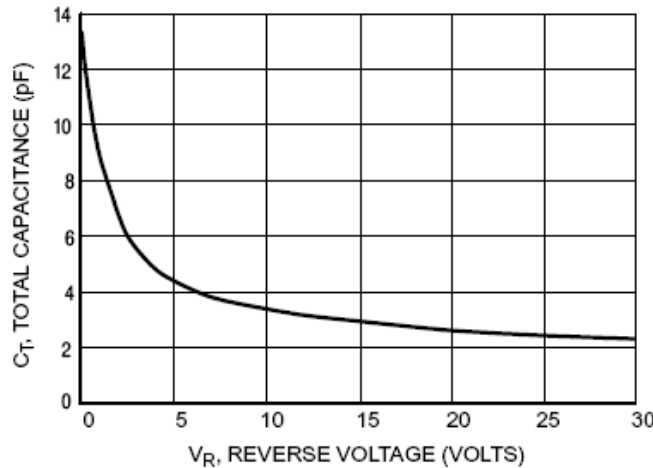
**Figure 1. Recovery Time Equivalent Test Circuit**



**Figure 2. Forward Voltage**



**Figure 3. Leakage Current**



**Figure 4. Total Capacitance**