Data Sheet

200mA SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

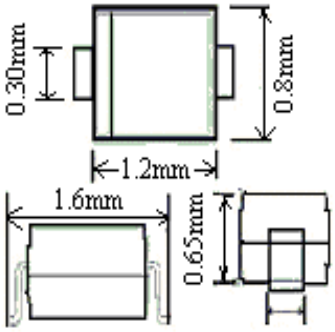
BAT54X

Description



SOD-523

Mechanical Dimensions



Dimensions in mm

Feature

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

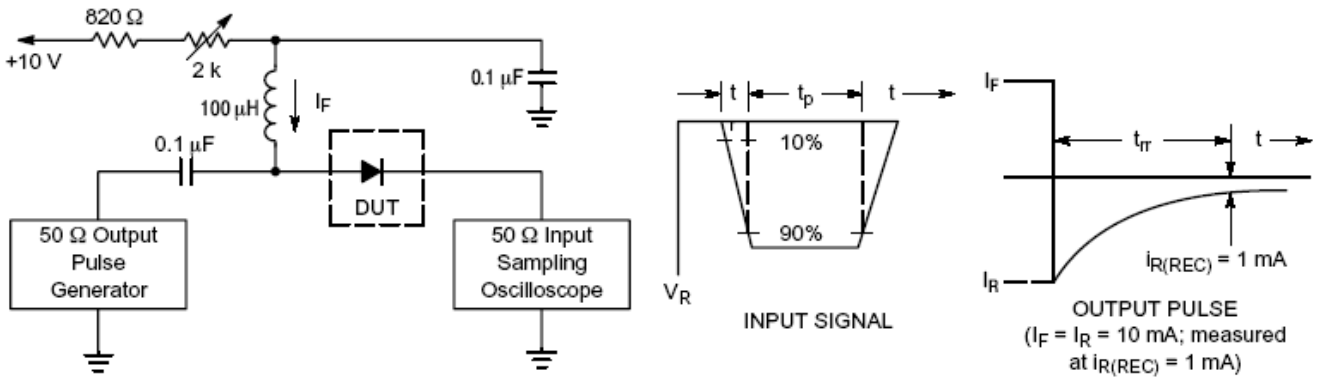
Max Ratings at Ta=25C Unless Otherwise Specified

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 & torage 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 $I_{R(peak)}$ is equal to 10 mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

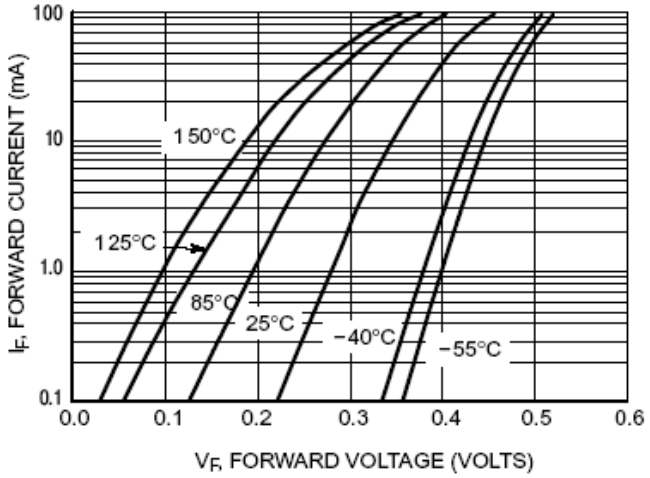


Figure 2. Forward Voltage

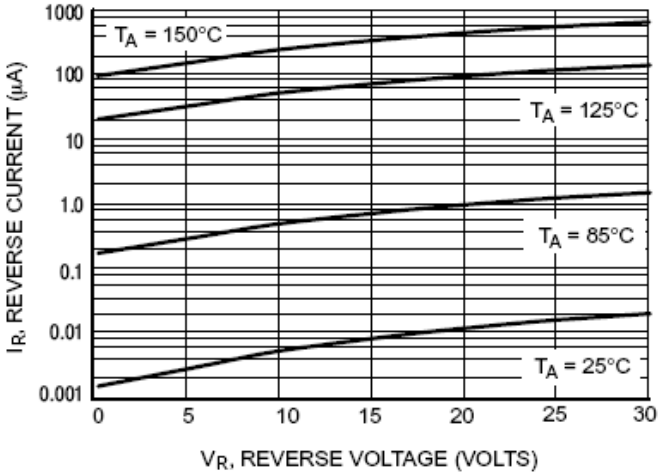


Figure 3. Leakage Current

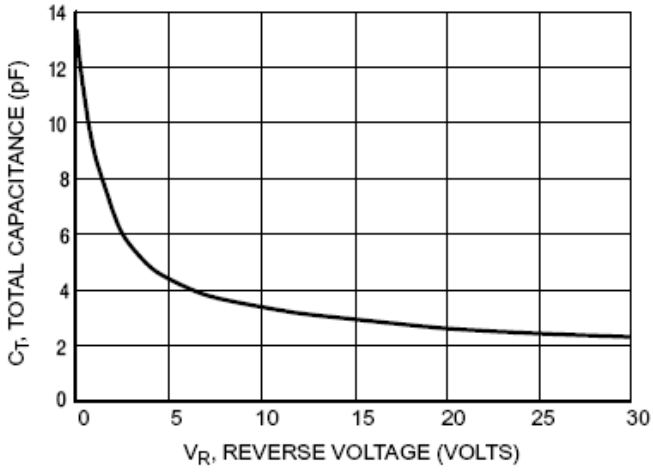


Figure 4. Total Capacitance