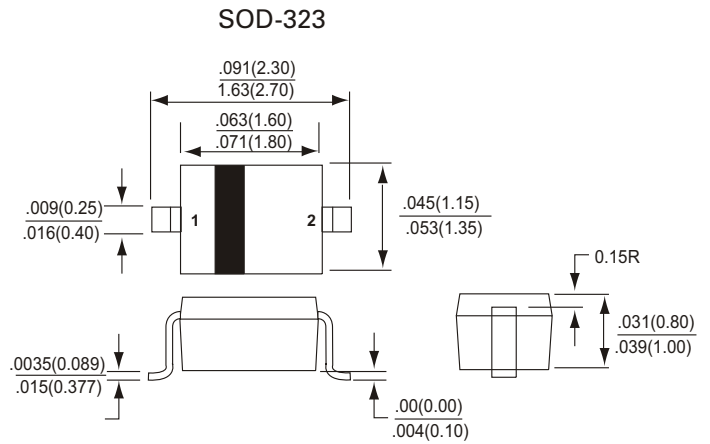


BAT54H

SURFACE MOUNT SCHOTTKY BARRIER DIODES

SMALL SIGNAL SCHOTTKY DIODES 200m AMPERES 30 VOLTS



PIN 1. CATHODE
2. ANODE

FEATURES

- *Extremely Fast Switching Speed
- *Low Forward Voltage
- *Very Small Conduction Losses
- *Schottky Barrier Diodes Encapsulated in a SOD-323 Package

MAXIMUM RATING ($T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Values	Unit
Reverse Voltage	V_R	30	V
Average Rectifier Forward Current	I_O	200	mA
Peak Repetitive Forward Current Rated V_R , Square Wave, 20KHz	I_{FSM}	400	mA
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	635	$^\circ\text{C}/\text{W}$
Power Dissipation	P_D	200	mW
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage ($I_R=10\mu\text{A}$)	$V_{(BR)R}$	30			Volts
Forward Voltage $I_F=0.1\text{mA}$ $I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=30\text{mA}$ $I_F=100\text{mA}$	V_F		0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.40 0.50 1.00	Volts
Total Capacitance ($V_R=1.0\text{V}$, $f=1.0\text{MHz}$)	C_T		7.6	10	Pf
Reverse Leakage $V_R=25\text{V}$	I_R		0.5	2.0	μA_{dc}
Reverse Recover Time $I_F=I_R=10\text{mA}$, $I_R(\text{Rec})=1.0\text{mA}$	T_{rr}			5.0	nS

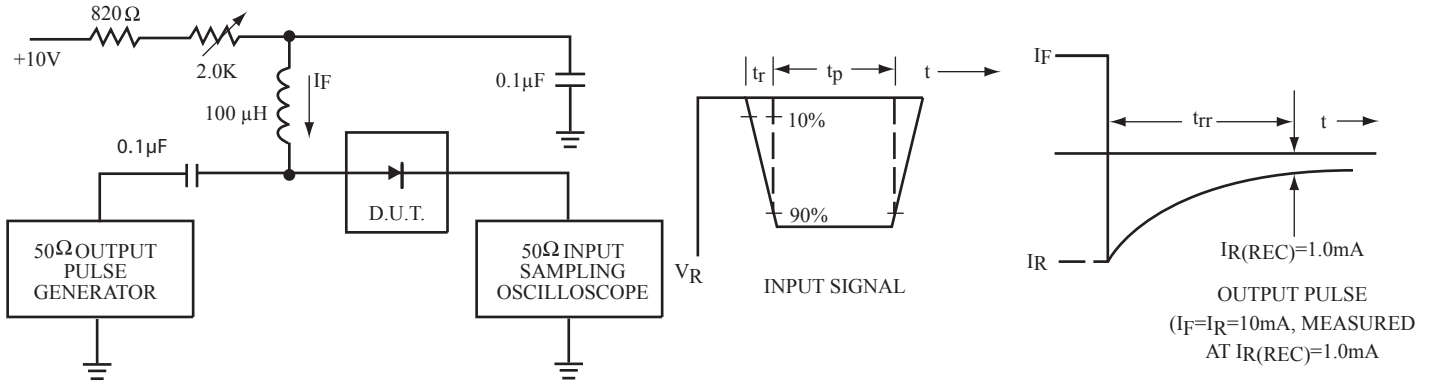
DEVICE MARKING

Item	Marking	Equivalent Circuit diagram
BAT54H	JV	1 2

BAT54H

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

Figure 1. Recovery Time Equivalent Test Circuit

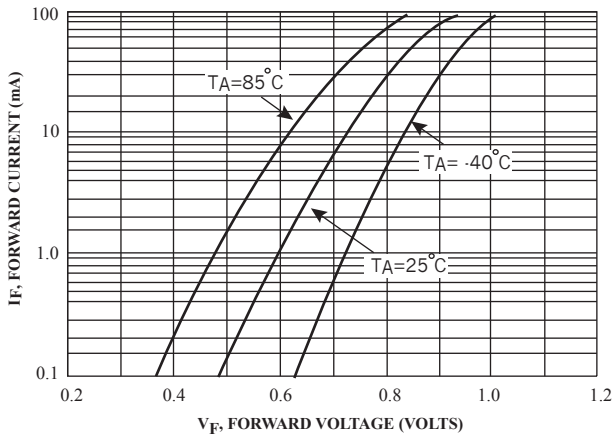


Figure 2. Forward Voltage

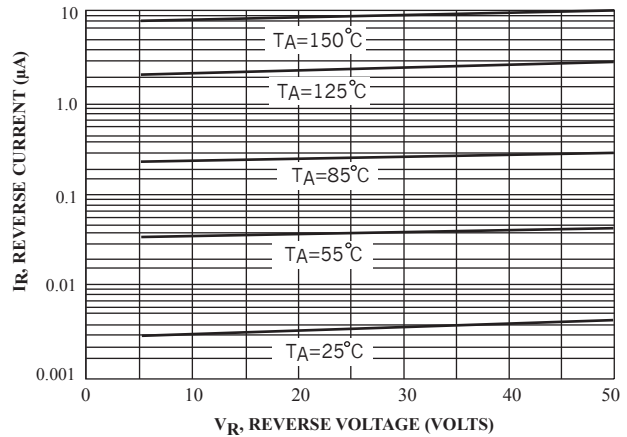


Figure 3. Leakage Current

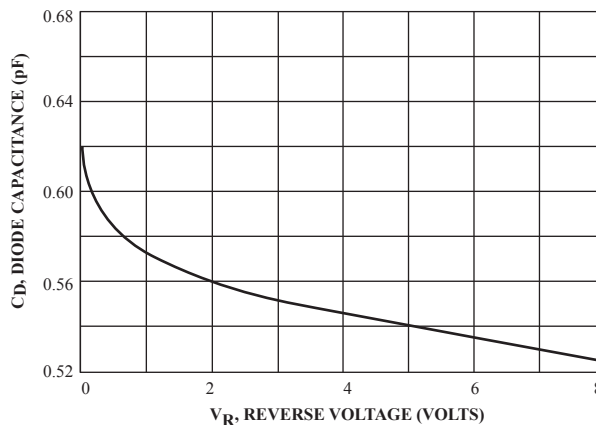


Figure 4. Capacitance