

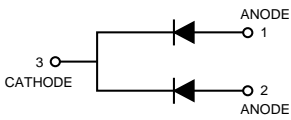
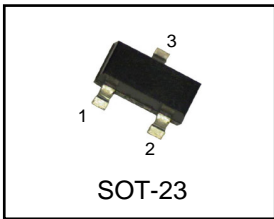
Schottky Barrier Diode

30 VOLTS
 SCHOTTKY BARRIER
 DETECTOR AND SWITCHING
 DIODE

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface mount package is excellent for hand held and portable applications where space is limited.

◆ Extremely Fast Switching Speed

BAT54RC



MAXIMUM RATINGS (T_J=125°C unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	30	Volts
Forward Power Dissipation @ T _A =25°C Derate above 25°C	P _F	225 1.8	mW mW / °C
Forward Current (DC)	I _F	200 Max	mA
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

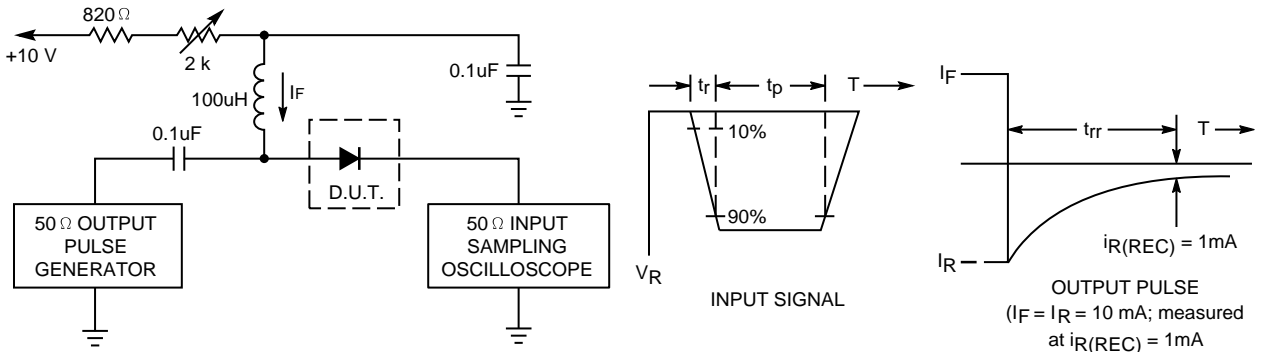
DEVICE MARKING

BAT54RC=KL3

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Leakage (V _R =25V)	I _R	-	-	2	uA
Forward Voltage (I _F =0.1mA _{dc}) (I _F =1.0mA _{dc}) (I _F =10mA _{dc}) (I _F =30mA _{dc}) (I _F =100mA _{dc})	V _F	-	-	0.24 0.32 0.40 0.50 1.00	V _{dc}
Total Capacitance (V _R =1.0V, f=1.0MHZ)	C _J	-	-	10	pF
Reverse Recovery Time (I _F =I _R =10 mA _{dc} , I _R (REC)=1.0mA _{dc})	trr	-	-	5.0	nS

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



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

FIGURE 2. FORWARD VOLTAGE

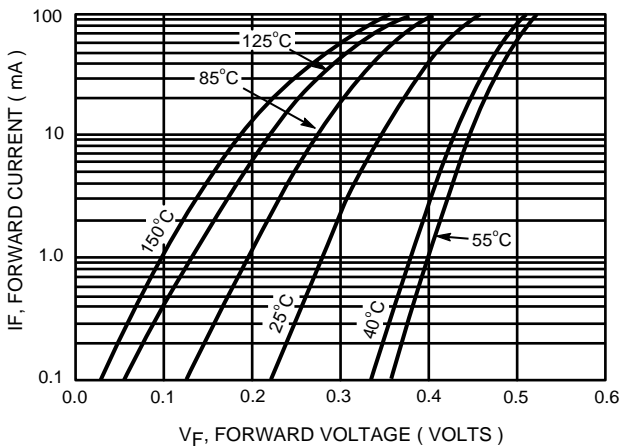


FIGURE 3. LEAKAGE CURRENT

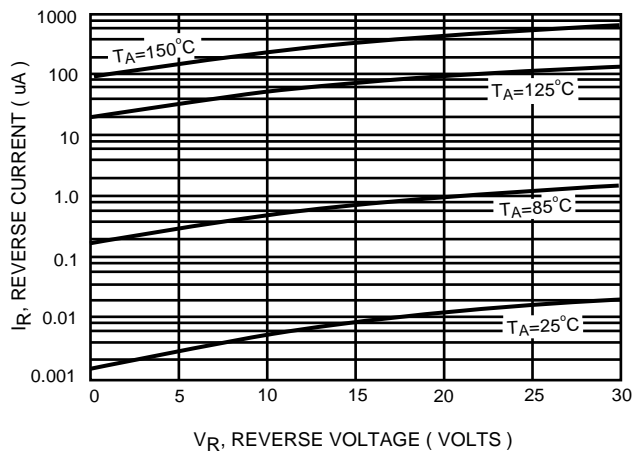


FIGURE 4. TOTAL CAPACITANCE

