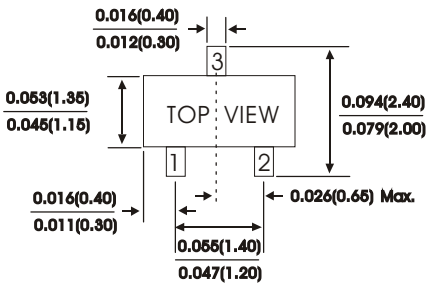
BAT54W THRU BAT54SW

SMALL SIGNAL SCHOTTKY BARRIER DIODES

FEATURES:

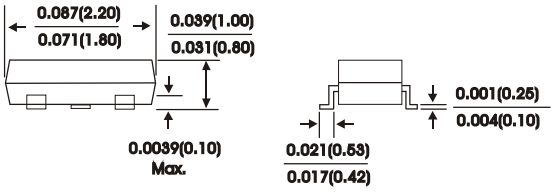
- **Extremely fast switching speed**
- **Very small conduction losses**
- **Schottky barrier diodes encapsulated in a SOT-23 PACKAGE**
- **Low forward voltage**
- **High speed switching applications circuit protection**

SOT-323(SC-70)



MECHANICAL DATA

Case : SOT-323 molded plastic



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temperature unless otherwise specified.
Single phase half wave, 60 Hz resistive or inductive load.
For capacitive load. derate current by 20%.

Characteristic	Symbol	BAT54	BAT54A	BAT54C	BAT54S	Units
Maximum reverse voltage	V_R	30				Volts
Minimum reverse breakdown voltage I_R=10uA	$V_{(BR)}R$	30				Volts
Maximum average forward rectified current	$I_{(AV)}$	0.2				Amps
Maximum Peak repetitive forward curren rated V_R , square wave , 20KHZ (Per leg)	I_{FRM}	0.3				Amps
Maximum instantaneous forward voltage (Per leg) IF=0.1mA IF=1.0mA IF=10mA IF=30mA IF=100mA	V_F	0.24 0.32 0.40 0.50 1.00				Volts
Maximum reverse current at V_R=25V (Per leg)	I_R	2.0				μA
Maximum reverse recovery time (NOTE 1) (Per leg)	T_{RR}	5.0				nS
Maximum total capactitance (NOTE 2)	C_T	10				P_F
Operating junction temperature range	T_J	-55to+125				℃
Storage temperature range	T_{Stg}	-55to+150				℃

NOTES:
(1)Reverse Recovery Test CONDITION : I_F=I_R=10mA, $I_{R(REC)}$ =1.0mA
(2)Measured at 1MHZ and reverse Voltage of 1.0V

Device Marking

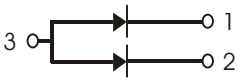
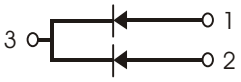
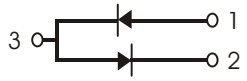
Item	Marking	Eqivalent Circuit diagram
BAT54W	B4,KL5	
BAT54AW	B6,B7,KL6	
BAT54CW	L3,KL7	
BAT54SW	B8,KL8	

FIG.1 - TYPICAL REVERSE CHARACTERISTICS

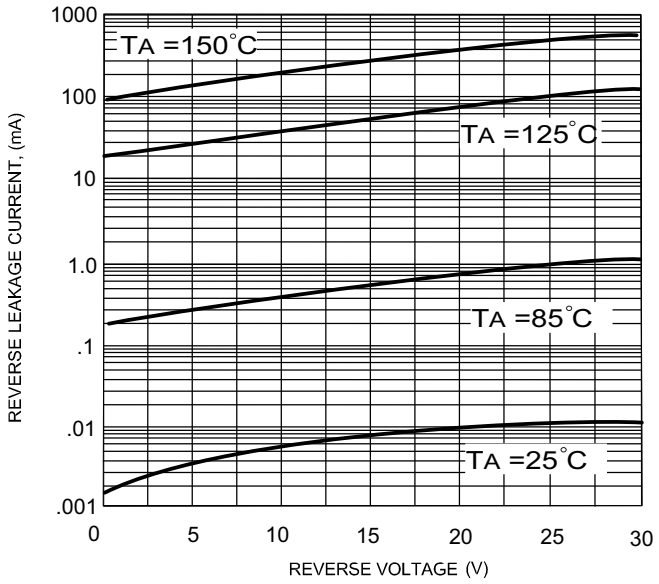


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

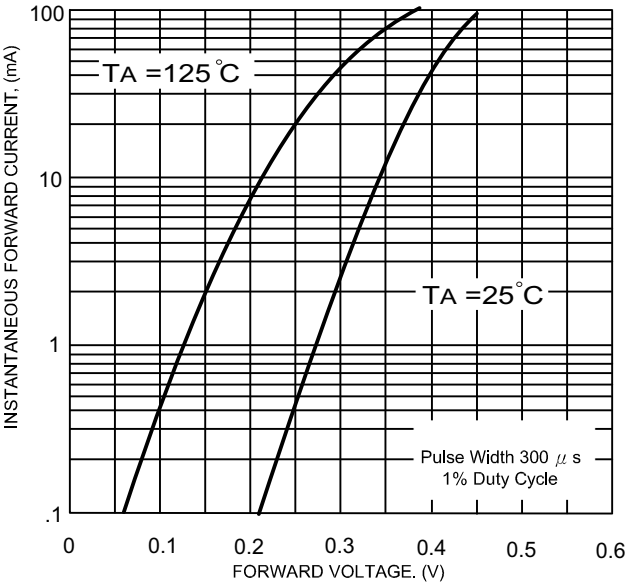


FIG.3- TYPICAL CAPACITANCE

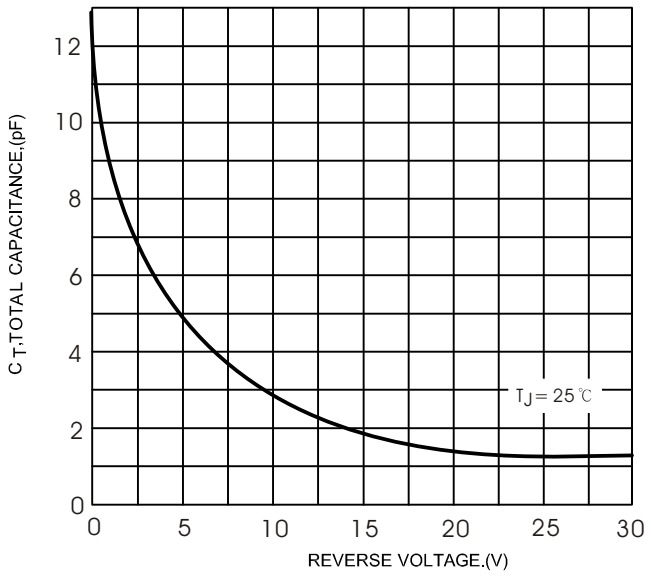
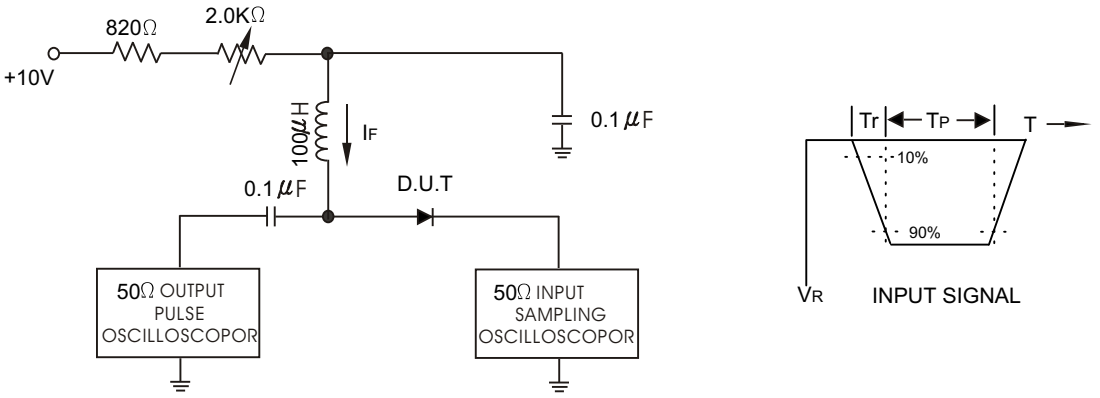
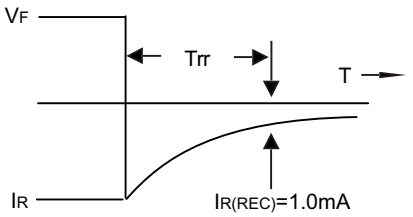


Figure 4 Recovery Test equivalent Circuit



NOTES : 1.A 2.0K Variable resistor for forward current (I_F) of 10mA
2.Input pules is adjusted so $I_{R(peak)}$ is equal to 10mA
3.tp" trr



OUTPUT PULSE

(I_F=I_R=10mA, MEASURED at $I_{R(REC)}$=1.0mA)