

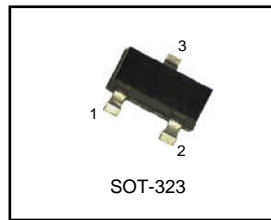
Schottky Barrier Diode

Lead free product

- * Extremely Fast Switching Speed
- * Low Forward Voltage
- * PN Junction Guard Ring for Transient and ESD Protection.

30 VOLTS
SCHOTTKY BARRIER
DETECTOR AND SWITCHING
DIODE

BAT54WG



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

Rating	Symbol	Value	Unit
Reverse Voltage	VR	30	Volts
Forward Power Dissipation @ TA=25°C Derate above 25°C	PF	200 2.0	mW mW / °C
Forward Current (DC)	IF	200 Max	mA
Operating Junction Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	TSTG	-55 to +150	°C

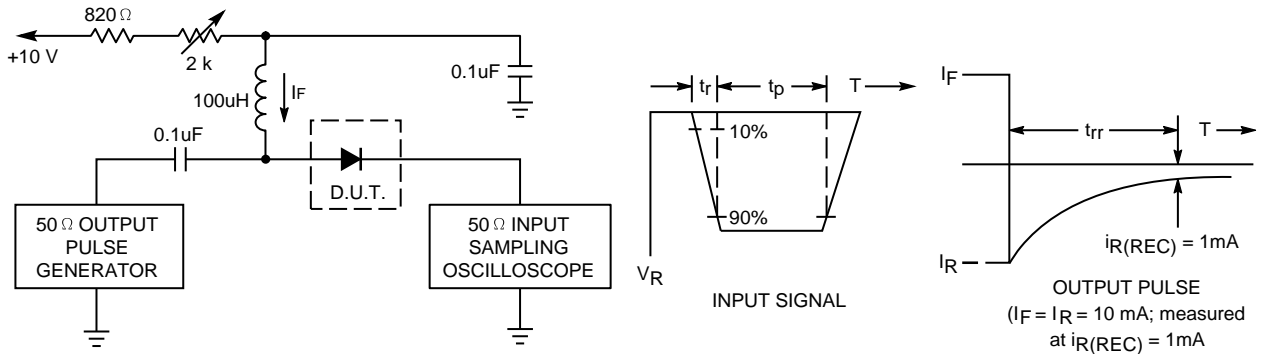
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage (IR=10 uAdc)	V(BR)	30	-	-	Volts
Forward Voltage (IF=0.1 mAdc) (IF=1.0 mAdc) (IF=10 mAdc) (IF=30 mAdc) (IF=100 mAdc)	VF	- - - - -	0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.40 0.50 1.00	Vdc
Reverse Leakage (VR=25 Vdc)	IR	-	0.5	2.0	uAdc
Diode Capacitance (VR=1.0V, f=1.0MHZ)	CJ	-	7.6	10	pF
Reverse Recovery Time (IF=IR=10 mAdc, IR(REC)=1.0mAdc)	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

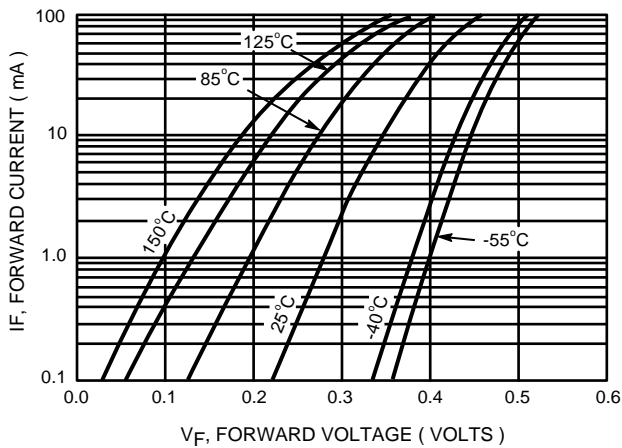


FIGURE 3. LEAKAGE CURRENT

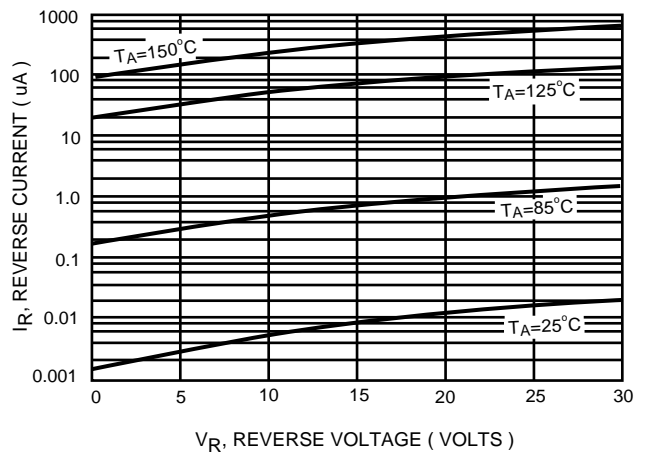


FIGURE 4. TOTAL CAPACITANCE

