Zowie Technology Corporation

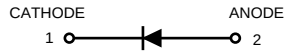
Schottky Barrier Diode
Lead free product
Halogen-free type

30 VOLTS
SCHOTTKY BARRIER
DETECTOR AND SWITCHING
DIODE

BAT54HT1GH



SOD-323



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	30	Vdc

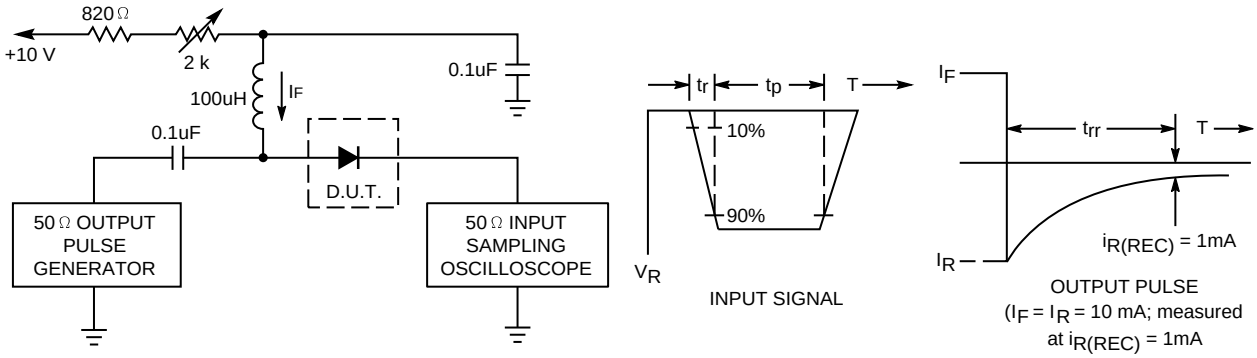
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Total Device Dissipation FR-5 Board, T_A=25°C Derate above 25°C	P_D	200 1.57	mW mW / °C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	635	°C / W
Junction and Storage Temperature	T_J,T_{STG}	150	°C

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

Characteristic		Symbol	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS						
Reverse Breakdown Voltage (I_R=10uAdc)		$V_{(BR)}$	30	-	-	Vdc
Forward Voltage	(I_F=0.1 mAdc) (I_F=1.0 mAdc) (I_F=10 mAdc) (I_F=30 mAdc) (I_F=100 mAdc)	V_F	- - - - -	0.22 0.29 0.35 0.41 0.52	0.24 0.32 0.40 0.50 1.00	Vdc
Reverse Voltage Leakage Current	(V_R=25 Vdc)	I_R	-	0.5	2.0	uAdc
Forward Current (DC)		I_F	-	-	200	mAdc
Repetitive Peak Forward Current		I_{FRM}	-	-	300	mAdc
Non-Repetitive Peak Forward Current (t < 1.0 s)		I_{FRM}	-	-	600	mAdc
Junction Capacitance (V_R=1.0V, f=1.0MHz)		C_J	-	7.6	10	pF
Reverse Recovery Time (I_F=I_R=10 mAdc, $I_{R(REC)}$=1.0mAdc)		trr	-	-	5.0	nS

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
3. tp » trr

FIGURE 2. FORWARD VOLTAGE

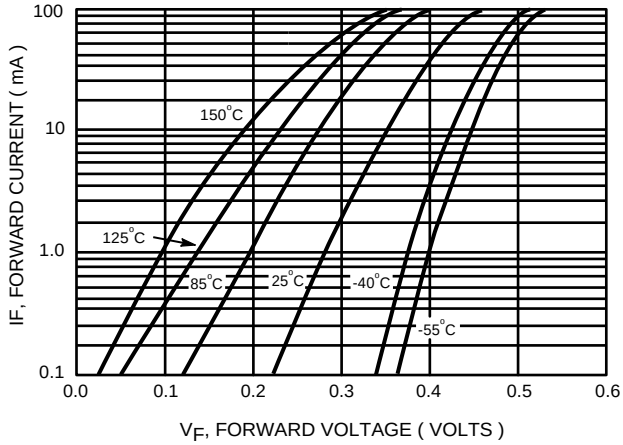


FIGURE 3. LEAKAGE CURRENT

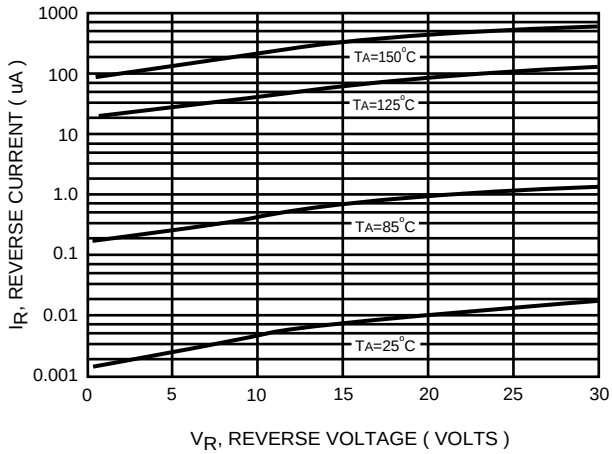


FIGURE 4. CAPACITANCE

