

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low Turn-on Voltage
- Extremely Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection

MARKING

JV□ ← □ = Date Code

L4

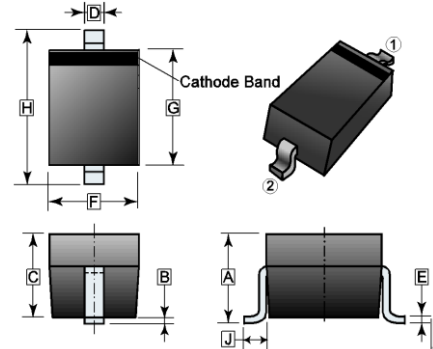
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323	3K	7 inch

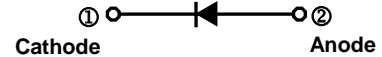
ORDER INFORMATION

Part Number	Type
BAT54H-C	Lead (Pb)-free and Halogen-free

SOD-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.05 REF.		F	1.10	1.50
B	0.07 REF.		G	1.50	1.95
C	0.80	1.10	H	2.30	2.80
D	0.25	0.40	J	0.475 REF.	
E	0.05	0.25			



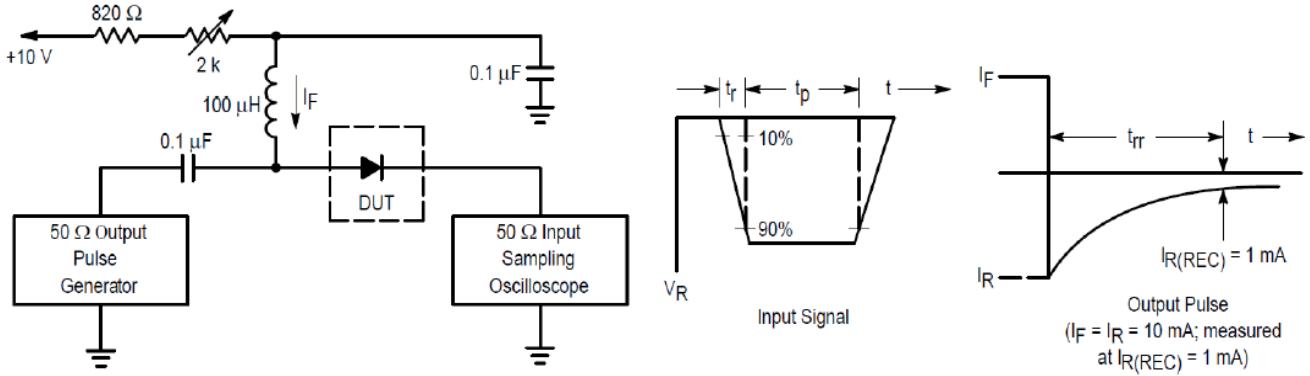
ABSOLUTE MAXIMUM RATINGS (T_A=125°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Reverse Voltage	V _R	30	V
Forward Current	I _F	200	mA
Peak Repetitive Forward Current @Rated V _R , Square Wave, 20kHz	I _{FSM}	400	mA
Non-Repetitive Peak Forward Current @t<1s		600	
Repetitive Peak Forward Current	I _{FRM}	300	mA
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-Ambient	R _{θJA}	635	°C/W
Junction & Storage Temperature	T _J , T _{STG}	-55~125, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	V _{BR}	30	-	-	V	I _R =10μA
Reverse Leakage Current	I _R	-	0.5	2	μA	V _R =25V
Total Capacitance	C _T	-	7.6	-	pF	V _R =1V, f=1MHz
Forward Voltage	V _F	-	0.22	0.24	V	I _F =0.1mA
		-	0.29	0.32		I _F =1mA
		-	0.35	0.4		I _F =10mA
		-	0.41	0.5		I _F =30mA
		-	0.52	1		I _F =100mA
Reverse Recovery Time	t _{rr}	-	5	-	nS	I _F =I _R =10mA, I _{R(REC)} =1mA

RATINGS AND CHARACTERISTIC CURVES



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

Figure 1. Recovery Time Equivalent Test Circuit

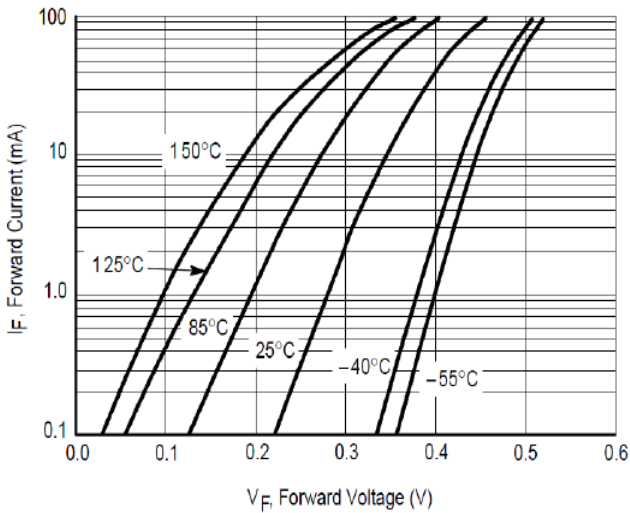


Figure 2. Forward Voltage

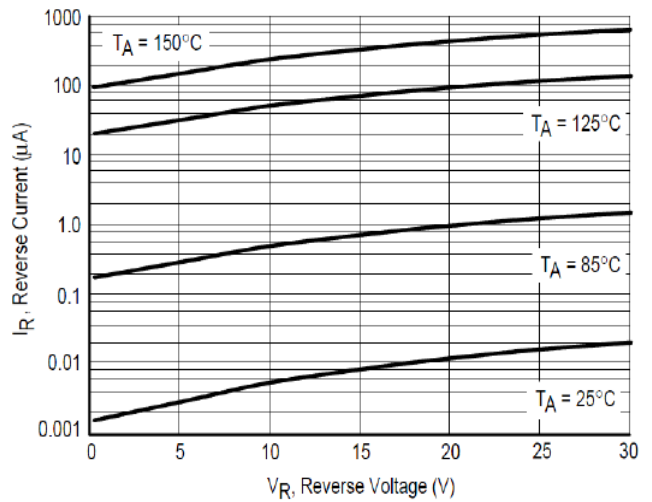


Figure 3. Leakage Current

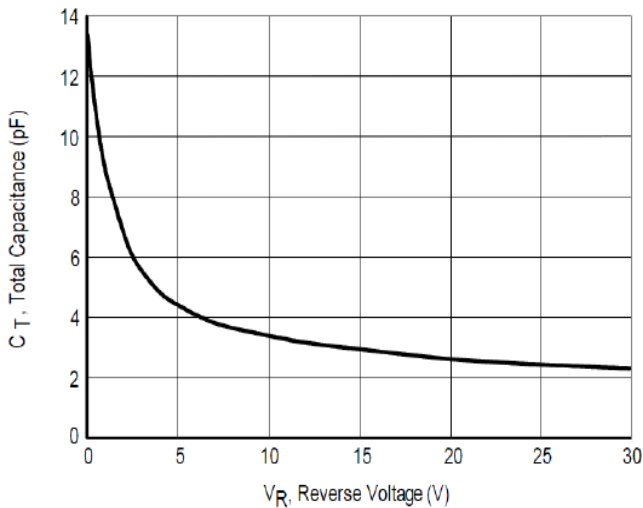
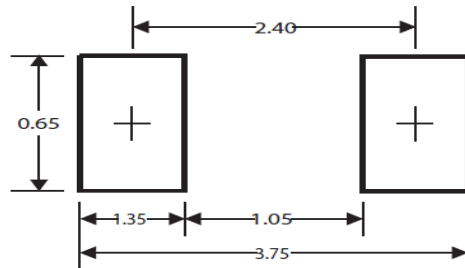


Figure 4. Total Capacitance



*Dimensions in millimeters

Figure 5. Mounting Pad Layout