



DESCRIPTION

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

The BAT54SW available in SC-70 package

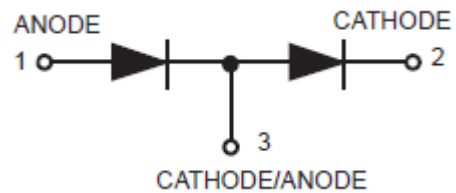
FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage — 0.35 V (Typ.)
@ $I_F=10\text{mA}$
- Available in SC-70 package

ORDERING INFORMATION

Package Type	Part Number
SC-70	BAT54SW
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

$T_J = 125^\circ\text{C}$ unless otherwise noted

V_R , DC Reverse Voltage	30 V
P_D , Total Device Dissipation FR-5 Board, $T_A = 25^\circ\text{C}$	200mW
Derate above 25°C	1.6mW/ $^\circ\text{C}$
I_F , Forward Current(DC)	200mA
T_J , Junction Temperature	125 $^\circ\text{C}$
T_{STG} , Storage Temperature Range	$-55^\circ\text{C} \sim +150^\circ\text{C}$

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

T_A = 25°C

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =10μA	30	-	-	V
Forward Voltage	V _F	I _F =0.1mA	-	0.22	0.24	V
Forward Voltage	V _F	I _F =1mA	-	0.2.9	0.32	V
Forward Voltage	V _F	I _F =10mA	-	0.35	0.40	V
Forward Voltage	V _F	I _F =30mA	-	0.41	0.50	V
Forward Voltage	V _F	I _F =100mA	-	0.52	1.0	V
Reverse Current	I _R	V _R =25V	-	0.5	2.0	μA
Repetitive Peak Forward Current	I _{FRM}		-	-	300	mA
Non-Repetitive Peak Forward Current (t<1.0s)	I _{FSM}		-	-	600	mA
Total Capacitance	C _T	V _R =1.0V, f=1.0MHz	-	-	10	pF
Reverse Recovery Time	trr	I _F =I _R =10mAdc, I _{R(REC)} =1.0mAdc	-	-	5.0	ns



TYPICAL CHARACTERISTICS

Figure 1. Forward Characteristics

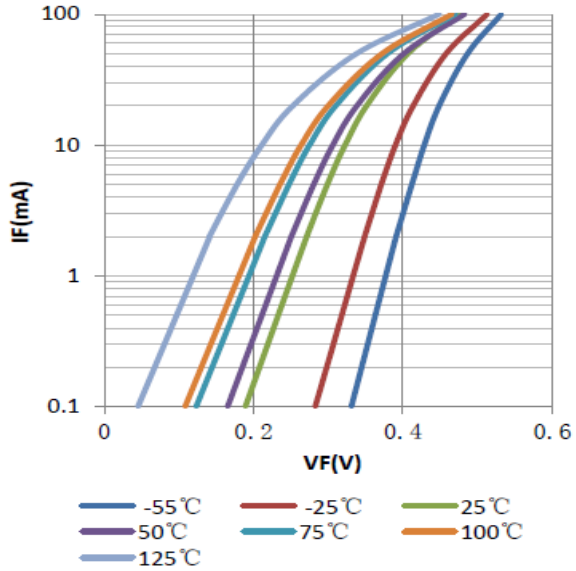


Figure 2. Reverse Characteristics

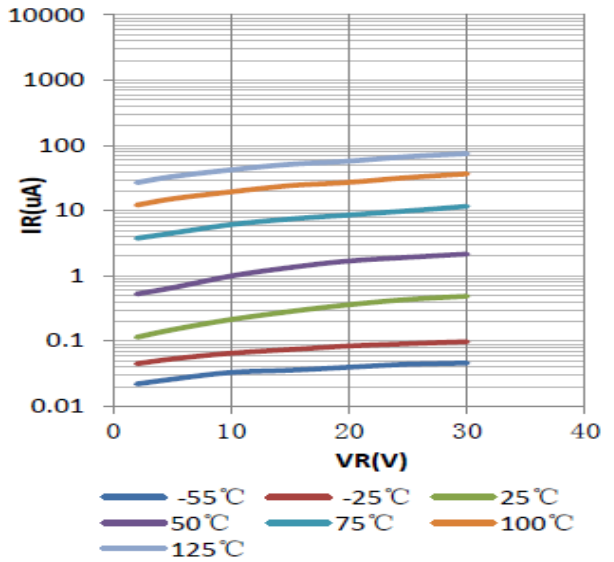
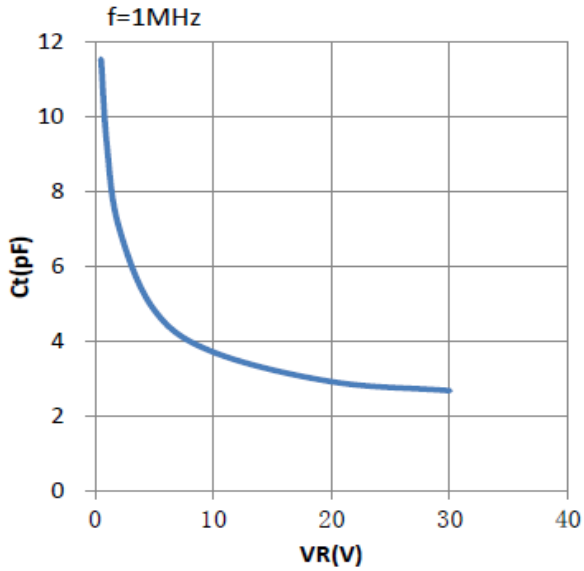


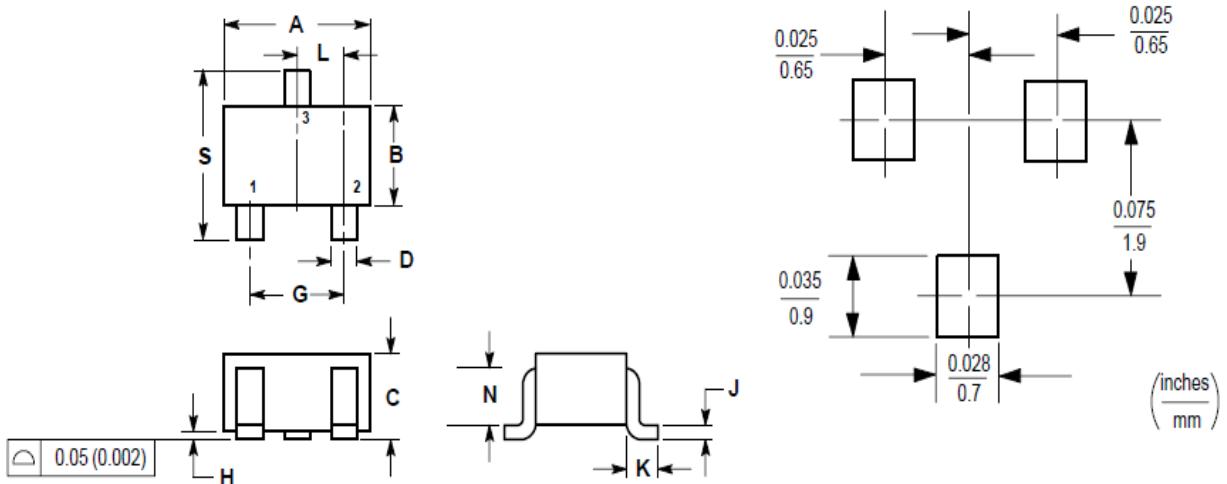
Figure 3. Capacitance





PACKAGE INFORMATION

Dimension in SC-70 Package (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.032	0.040
D	0.30	0.40	0.012	0.016
G	1.20	1.40	0.047	0.055
H	0.00	0.10	0.000	0.004
J	0.10	0.25	0.004	0.010
K	0.425 REF		0.017 REF	
L	0.650 BSC		0.026 BSC	
N	0.028 REF		0.700 REF	
S	2.00	2.40	0.079	0.095



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