



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 BAT54CW is available in SC-70 package

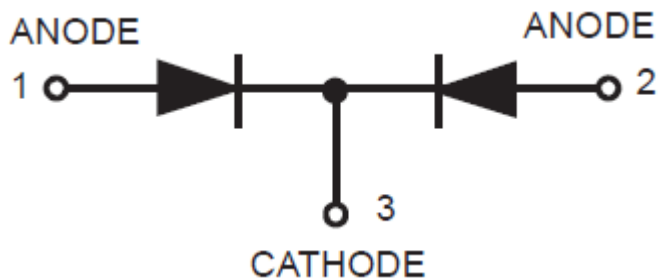
FEATURES

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

ORDERING INFORMATION

Package Type	Part Number
SC-70	BAT54CW
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted

V _R , Reverse Voltage	30V
P _D , Total Device Dissipation FR-5 Board, @T _A = 25°C	225mW
Derate above 25°C	1.8mW/°C
I _F , DC Forward Current	200mA
T _J , Junction Temperature	125 °C
T _{STG} , Storage Temperature Range	-55°C ~ +150°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, unless otherwise noted

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
		I _F =1mA	-	0.29	0.32	
		I _F =10mA	-	0.35	0.4	
		I _F =30mA	-	0.41	0.5	
		I _F =100mA	-	0.52	1	
Reverse Current	I _R	V _R =25V	-	0.5	2	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	t _{rr}	I _F =I _R =10mA, I _{R(REC)} =1.0mA	-	-	5	ns



TYPICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$

Figure 1. Forward Characteristics

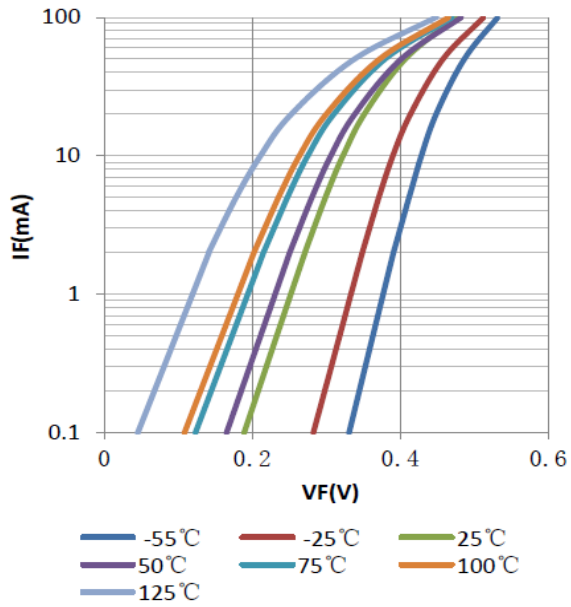


Figure 2. Reverse Characteristics

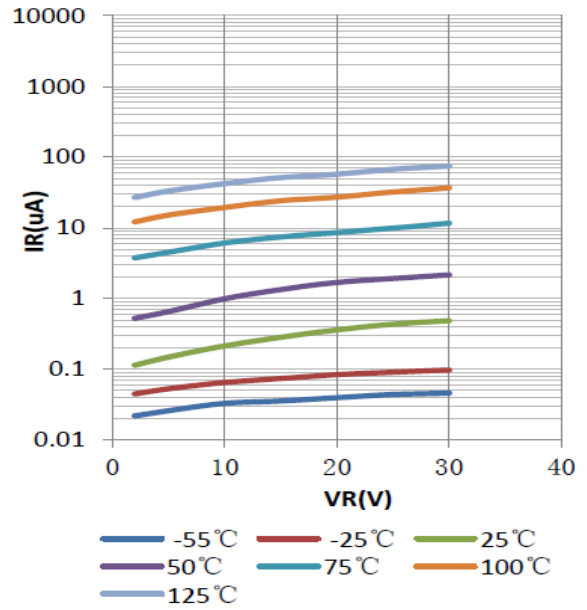
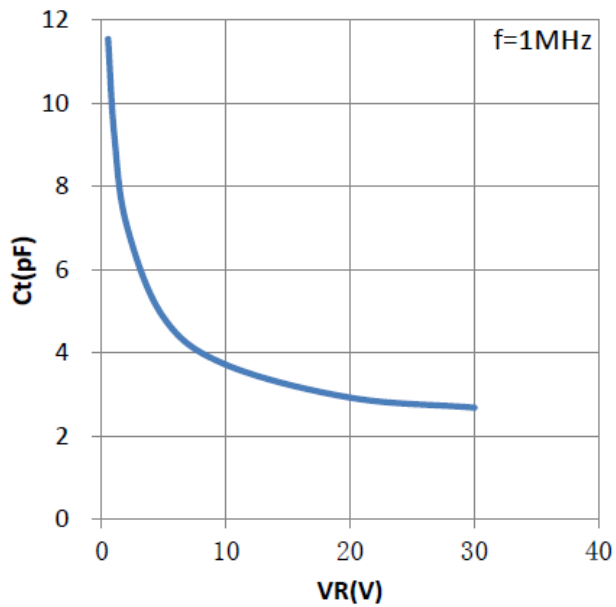


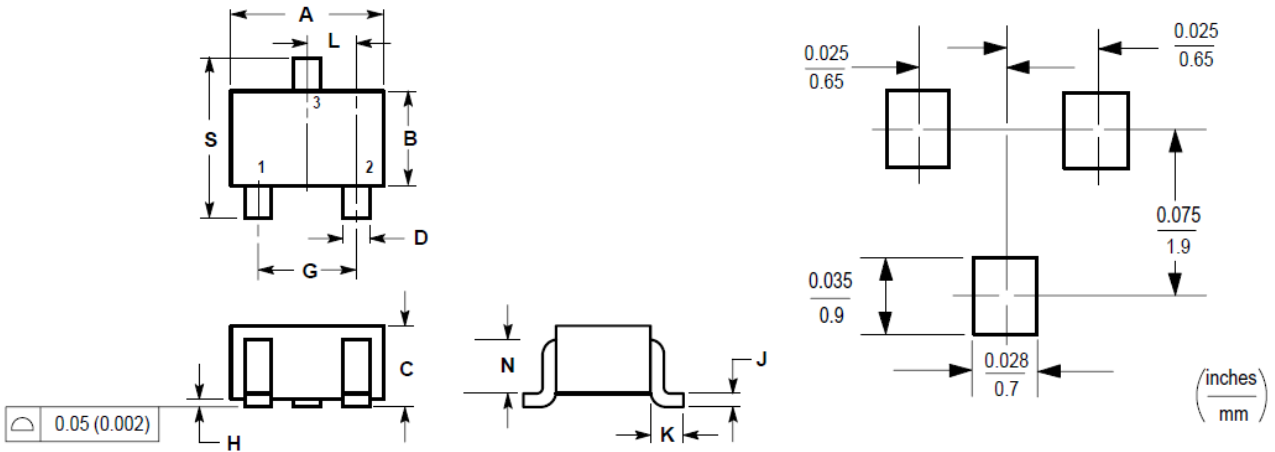
Figure 3. Capacitance





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	0.700 REF		0.028 REF	
S	2.00	2.40	0.079	0.095



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