

Small Signal Product
200mW Surface Mount Schottky Barrier Diode
FEATURES

- Fast switching speed
- Low forward voltage
- Surface mount device type
- Moisture sensitivity level 1
- Pb free and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code
- Ultra high-speed swithing
- Voltage clamping
- Protection circuits


SOT-323

MECHANICAL DATA

- Case: SOT-323 small outline plastic package
- High temperature soldering guaranteed: 260°C/10s
- Weight: 5mg (approximately)

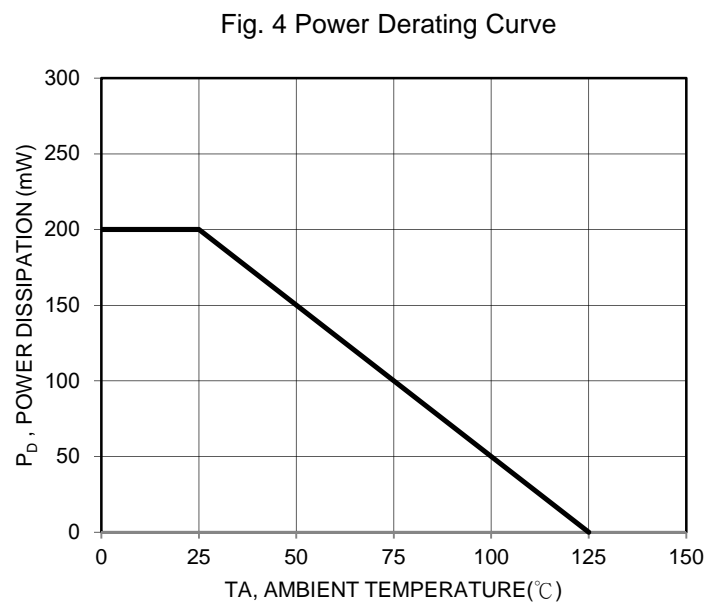
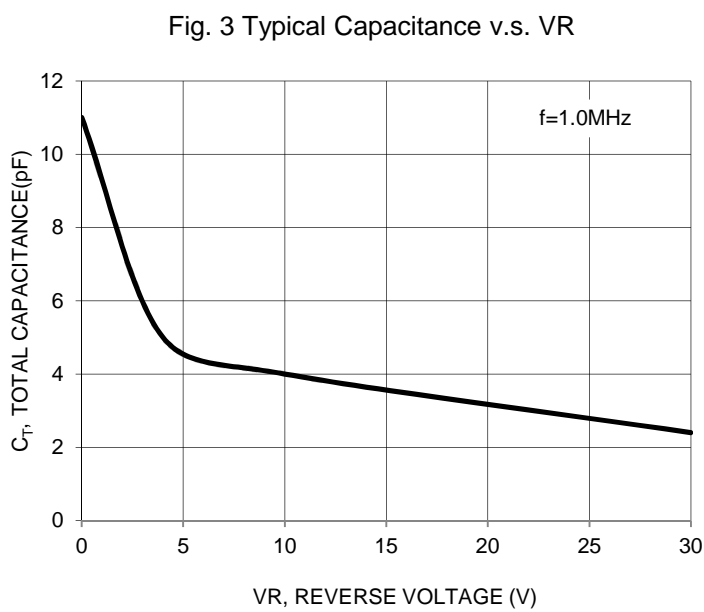
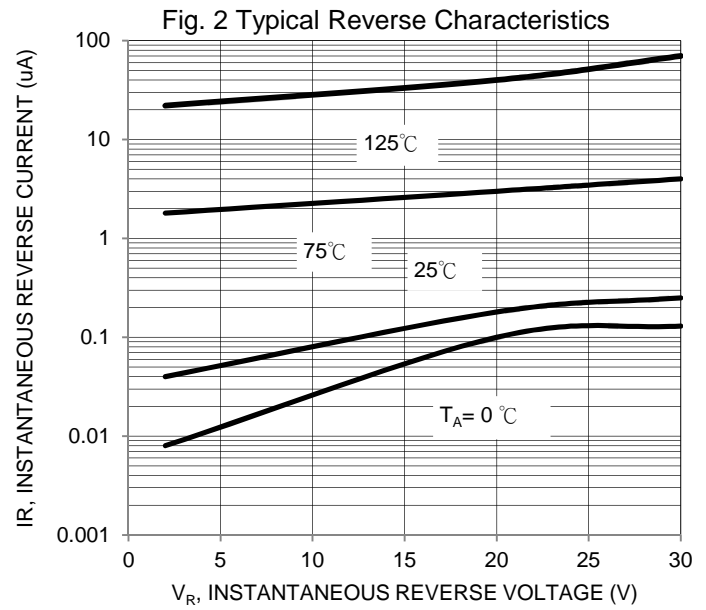
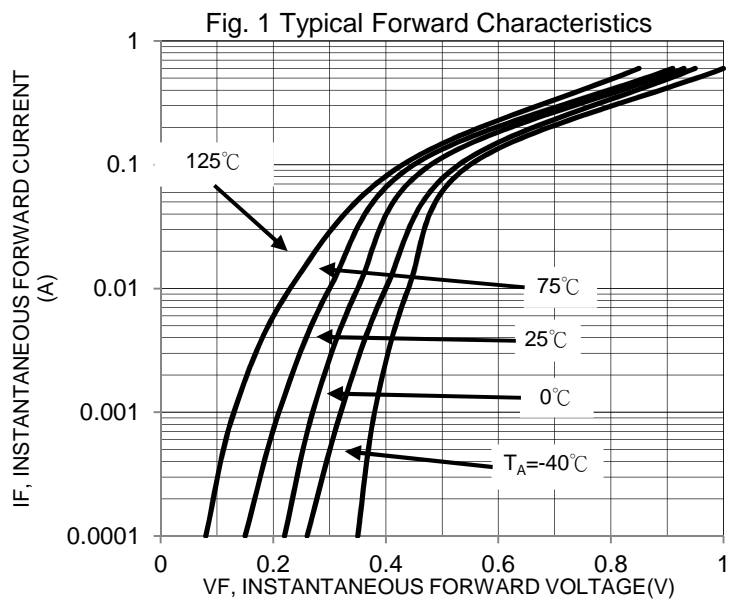
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current (tp=10ms)	I_{FSM}	600	mA
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance form Junction Ambient	R_{thjA}	625	K/W
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 150	$^\circ\text{C}$

PARAMETER	SYMBOL	MIN	MAX	UNIT	
Reverse Breakdown Voltage	$V_{(BR)R}$	30	--	V	
Forward Voltage	V_F	at $I_F = 0.1 \text{ mA}$	--	240	mV
		at $I_F = 1 \text{ mA}$	--	320	
		at $I_F = 10 \text{ mA}$	--	400	
		at $I_F = 30 \text{ mA}$	--	500	
		at $I_F = 100 \text{ mA}$	--	1000	
Reverse Current	I_R	--	2.0	μA	
Total Capacitance	C_T	--	10	pF	
Reverse Recovery Time	t_{rr}	--	5	ns	

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)



Small Signal Product

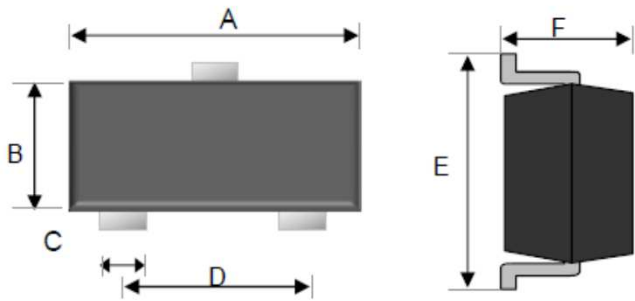
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54W	(Note)	RF	G	SOT-323	3K / 7" Reel	L4
BAT54AW		RF	G	SOT-323	3K / 7" Reel	L42
BAT54CW		RF	G	SOT-323	3K / 7" Reel	L43
BAT54SW		RF	G	SOT-323	3K / 7" Reel	L44

Note: Manufacture special control, if empty means no special control requirement.

EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BAT54W RFG	BAT54W		RF	G	Green compound
BAT54W-B0 RFG	BAT54W	B0	RF	G	Green compound

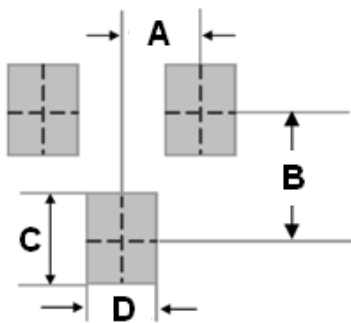
Small Signal Product

DIMENSIONS



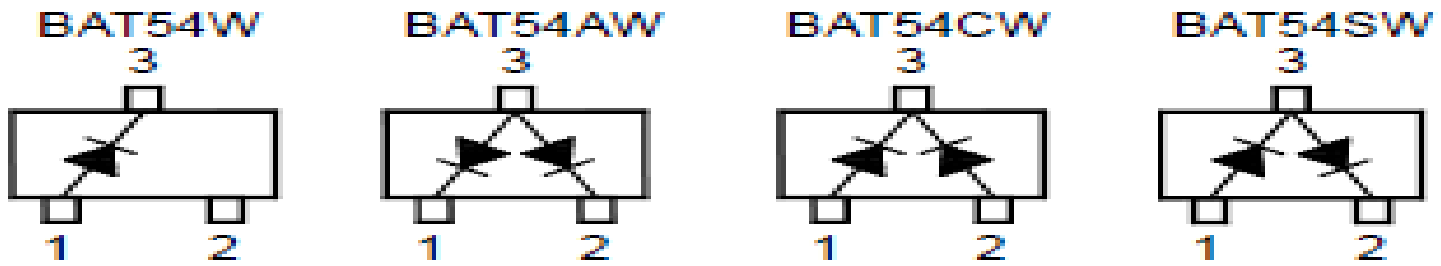
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.20	0.07	0.09
B	1.15	1.35	0.05	0.05
C	0.15	0.40	0.01	0.02
D	1.20	1.40	0.05	0.06
E	2.00	2.45	0.08	0.10
F	0.80	1.10	0.03	0.04

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	0.65	0.026
B	1.6	0.063
C	0.8	0.031
D	0.8	0.031

PIN CONFIGURATION



Small Signal Product**Notice**

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Taiwan Semiconductor:](#)

[BAT54AW RFG](#) [BAT54SW RFG](#) [BAT54CW RFG](#) [BAT54W RFG](#)