

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	

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

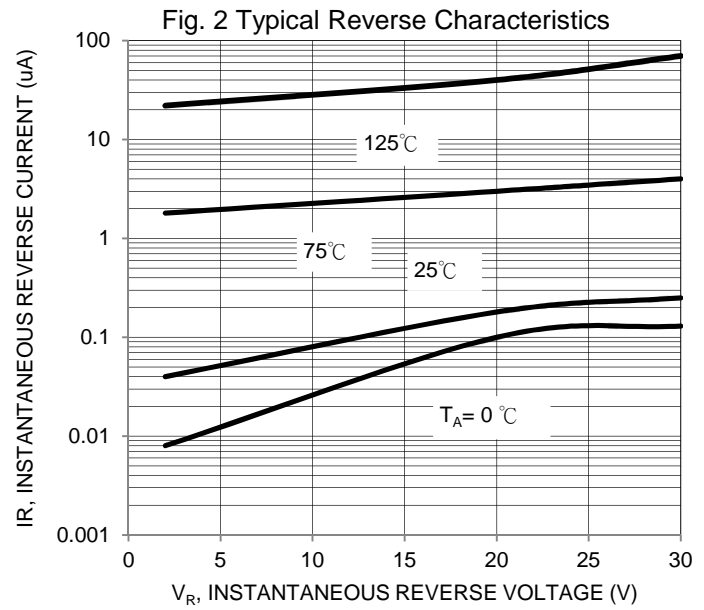
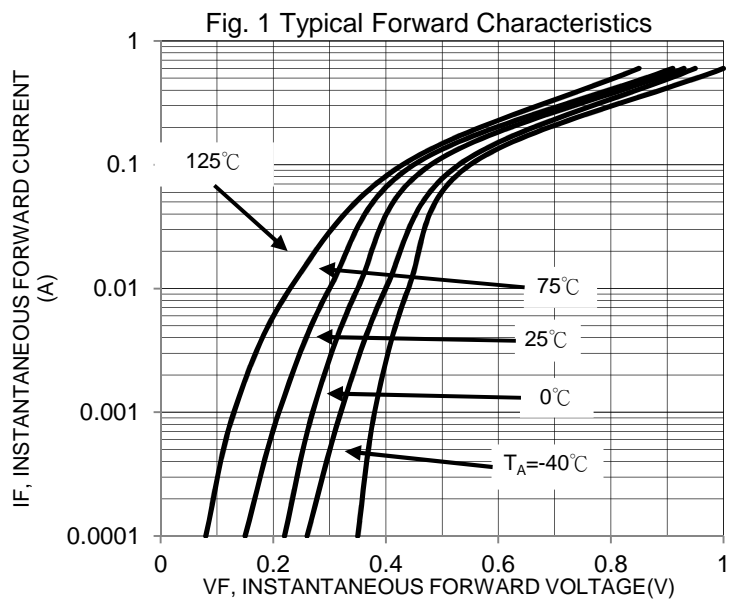


Fig. 3 Typical Capacitance v.s. VR

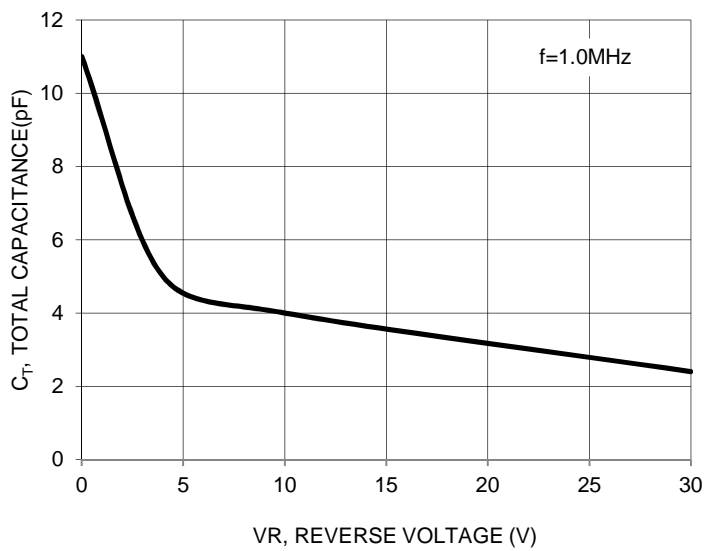
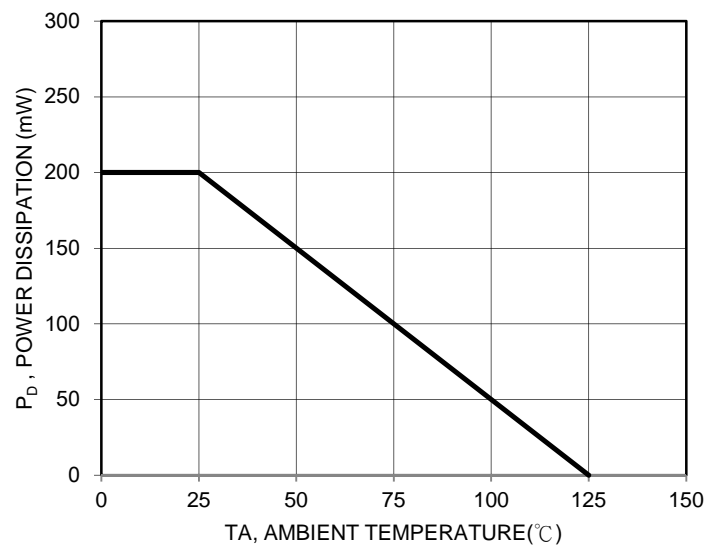


Fig. 4 Power Derating Curve



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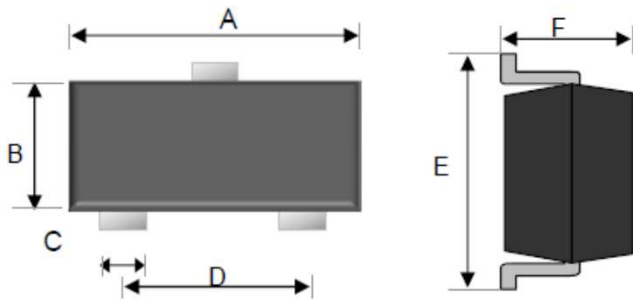
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BAT54W	(Note)	RF	G	SOT-323	3K / 7" Reel	L4
BAT54AW		RF	G	SOT-323	3K / 7" Reel	L42
BAT54CW		RF	G	SOT-323	3K / 7" Reel	L43
BAT54SW		RF	G	SOT-323	3K / 7" Reel	L44

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

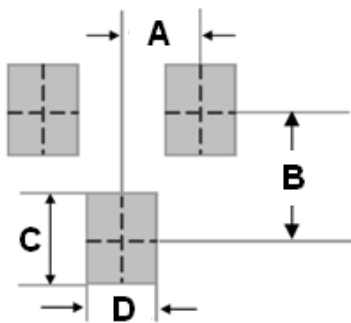
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DIMENSIONS



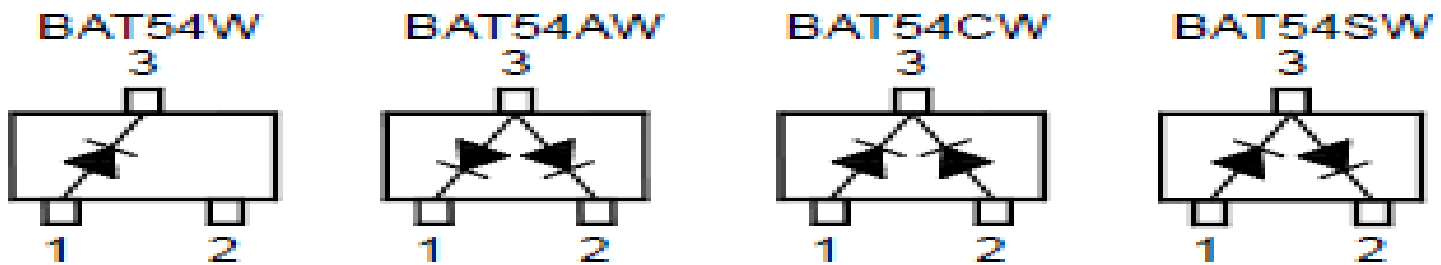
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.20	0.07	0.09
B	1.15	1.35	0.05	0.05
C	0.15	0.40	0.01	0.02
D	1.20	1.40	0.05	0.06
E	2.00	2.45	0.08	0.10
F	0.80	1.10	0.03	0.04

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



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