GOOD-ARK
SEMICONDUCTOR

BAT54/BAT54A/BAT54C/BAT54S
Schottky Diode

Features
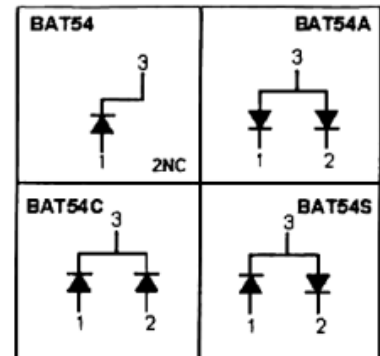
- Low forward voltage
- Low turn-on voltage
- Fast switching

Applications

- High speed switching
- Voltage claming
- Proection circuits

SOT-23

BAT54

BAT54A

2NC

BAT54C

BAT54S

Absolute Maximum Ratings (T$_A$ = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak reverse voltage Working Peak Reverse Voltage DC Reverse Voltage	V$_{RRM}$ V$_{RWM}$ V$_R$	30	V
Forward Continuous Current	I$_F$	200	mA
Repetitive Peak Forward Current	I$_{FRM}$	300	mA
Forward surge current @t<1.0s	I$_{FSM}$	600	mA
Power Dissipation	P$_D$	200	mW
Thermal resistance,junction to ambient air	R$_{\theta JA}$	500	°C /W
Operating and Storage temperature	T$_J$,T$_{STG}$	-65 to +150	°C

Electrical Characteristics (T$_A$ = 25°C unless otherwise noted)

Parameter	ymbol	Min.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V$_{(BR)}$	30	-	V	I$_R$=100µA
Forward voltage	V$_{F1}$	-	0.24	V	I$_F$=0.1mA
		-	0.32	V	I$_F$=1mA
		-	0.40	V	I$_F$=10mA
		-	0.50	V	I$_F$=30mA
		-	1	V	I$_F$=100mA
Reverse current	I$_R$	-	2	µA	$_R$=25V
Diode Capacitance	C$_D$	-	10	pF	V$_R$=1V,f=1MHz
Reverse Recovery Time	t$_{rr}$	-	5	ns	I$_F$=I$_R$=10mA I$_{rr}$=0.1XI$_R$,R$_L$=100Ω

Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)
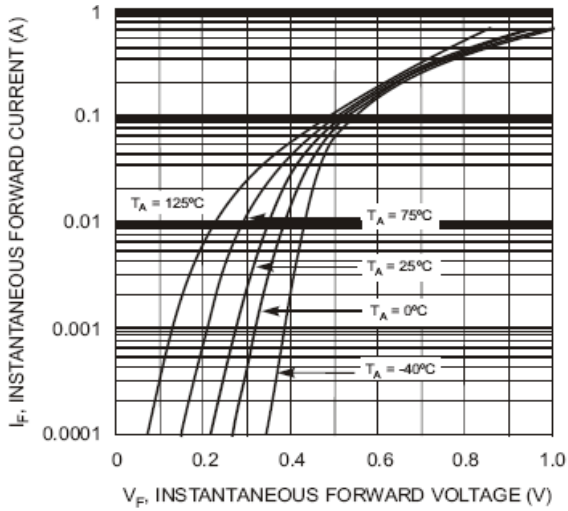

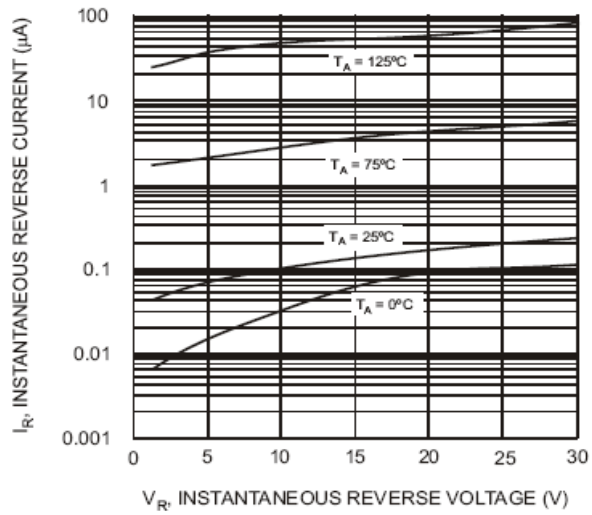Fig. 1 Forward Characteristics
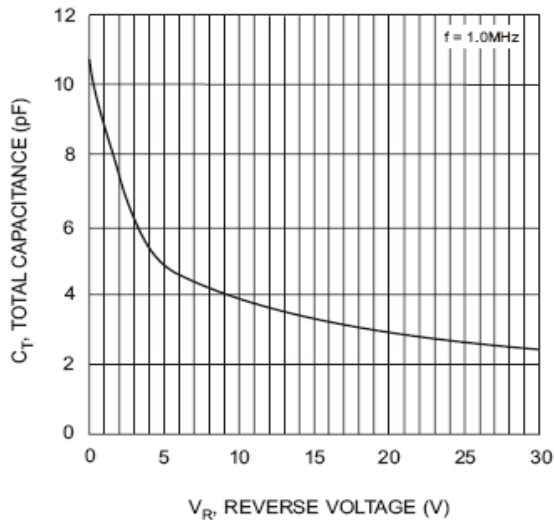

Fig. 2 Typical Reverse Characteristics
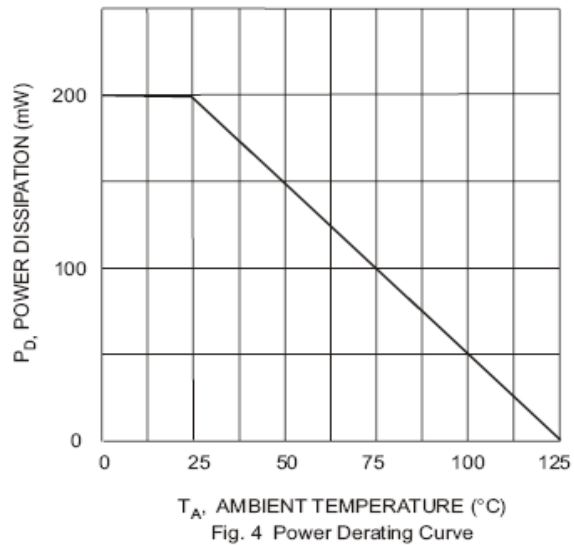

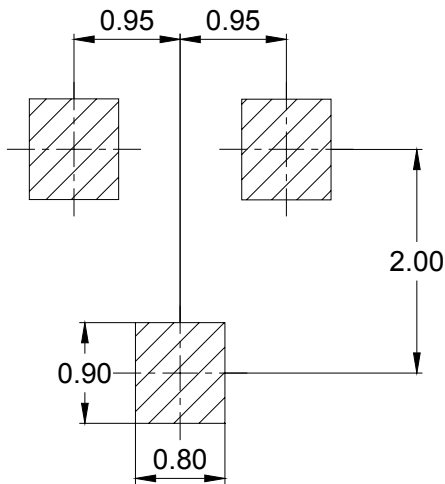Fig. 3 Typical Capacitance vs. Reverse Voltage

Fig. 4 Power Derating Curve

Package Outline Dimensions (SOT-23 in millimeters)

SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

Suggested Pad Layout   Unit : mm

0.95   0.95

2.00

0.90

0.80

Marking Information

P/N	BAT54	BAT54A	BAT54C	BAT54S
Marking	KL1	KL2	KL3	KL4