

Schottky Barrier diode

BAT54/A/C/S

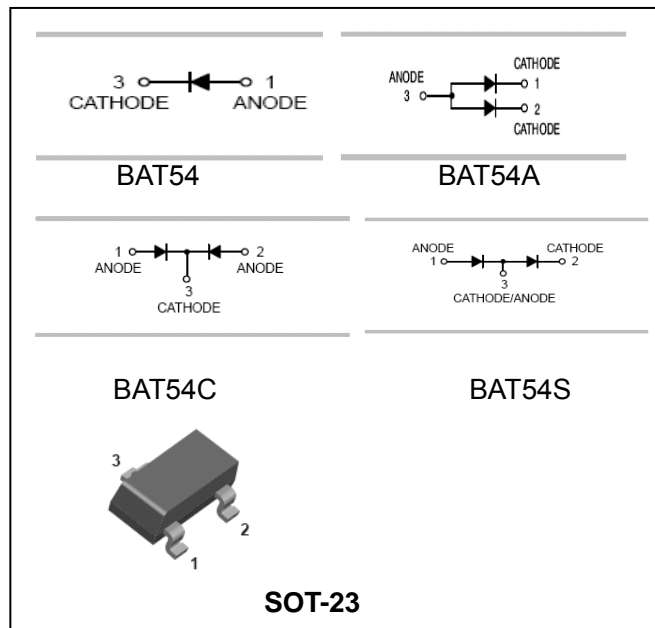
FEATURES

- Extremely Fast switching speed.
- Low forward voltage.
- Power dissipation $P_d=200\text{mW}$
- Pb-Free package is available.



APPLICATIONS

- Fast switching speed diode



ORDERING INFORMATION

Type No.	Marking	Package Code
BAT54	KL1	SOT-23
BAT54A	KL2	SOT-23
BAT54C	KL3	SOT-23
BAT54S	KL4	SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	200	mA
Forward surge current	I_{FSM}	600	mA
	@ $t < 1.0\text{s}$		
Power Dissipation	P_d	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Operating and Storage temperature	T_J, T_{STG}	-55-150	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)}$	30			V	$I_R=100\mu A$
Forward voltage	V_{F1}			0.24	V	$I_F=0.1mA$
	V_{F2}			0.32	V	$I_F=1mA$
	V_{F3}			0.40	V	$I_F=10mA$
	V_{F4}			0.50	V	$I_F=30mA$
	V_{F5}			1	V	$I_F=100mA$
Reverse current	I_R			2	μA	$V_R=25V$
Diode Capacitance	C_D			10	pF	$V_R=1V, f=1MHz$
Reverse Recovery Time	t_{rr}			5	ns	$I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

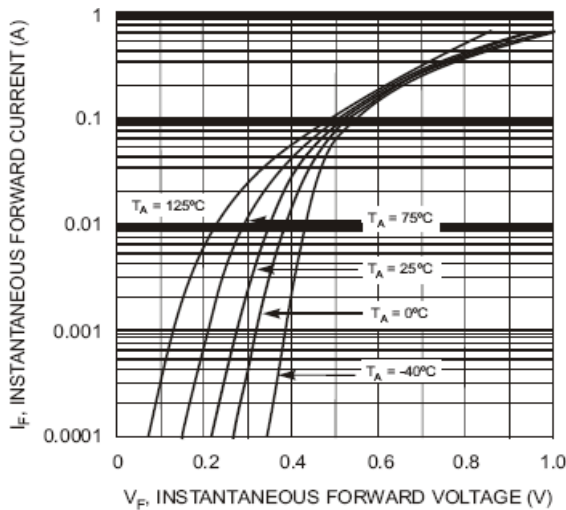


Fig. 1 Forward Characteristics

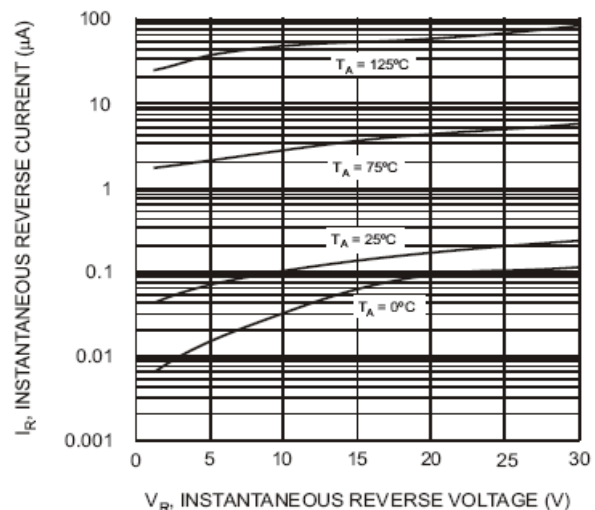


Fig. 2 Typical Reverse Characteristics

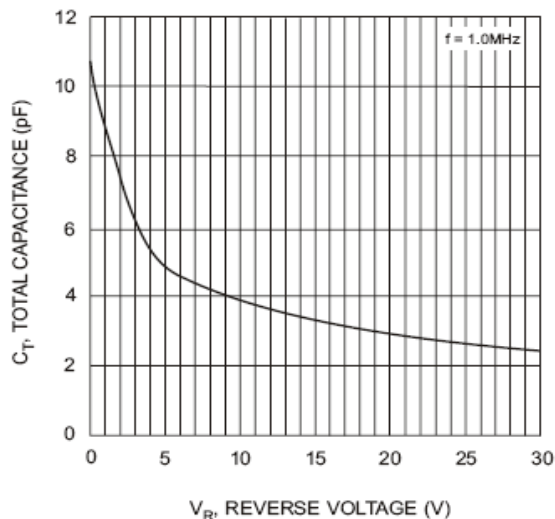


Fig. 3 Typical Capacitance vs. Reverse Voltage

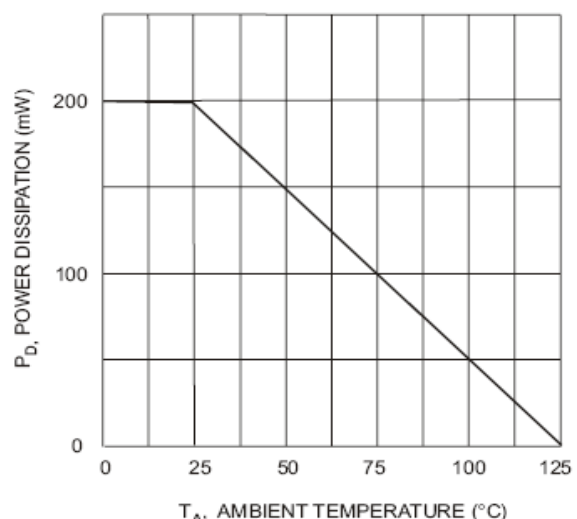


Fig. 4 Power Derating Curve

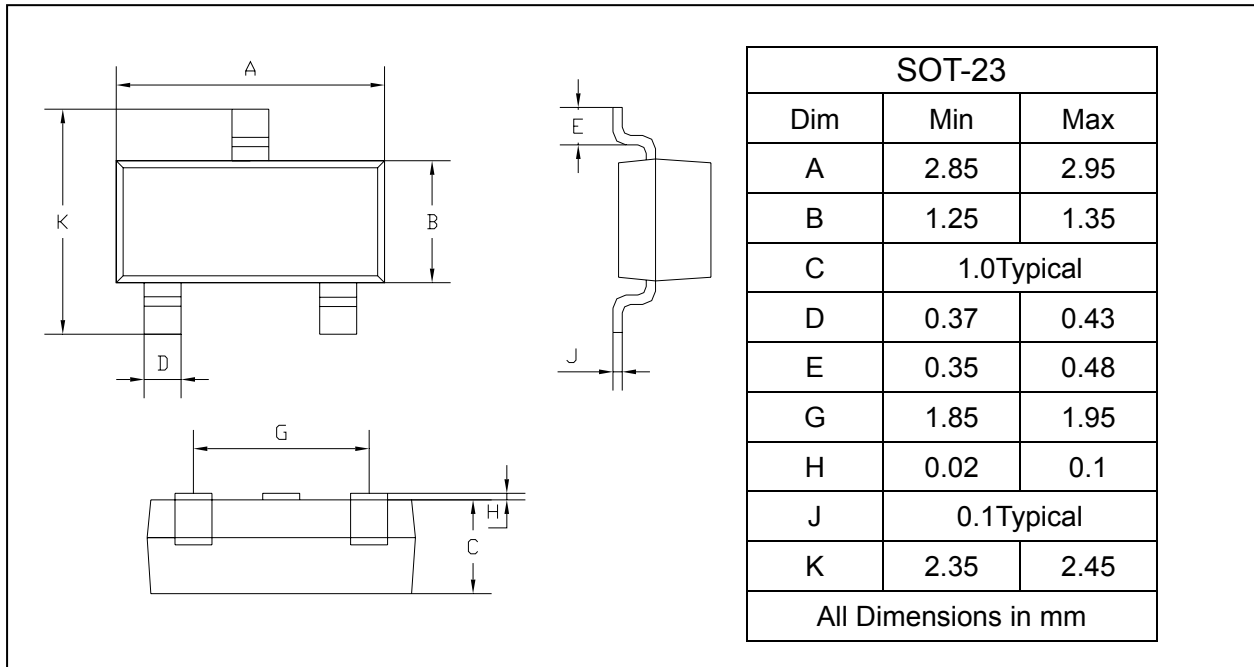
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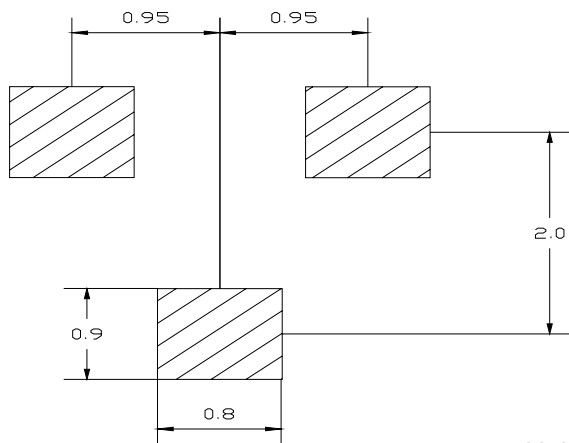
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAT54/A/C/S	SOT-23	3000/Tape&Reel