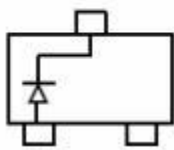
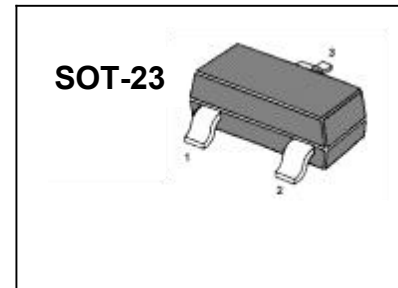
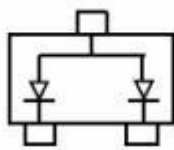


**FEATURES**

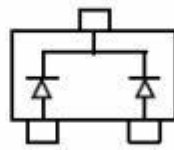
Extremely Fast Switching Speed



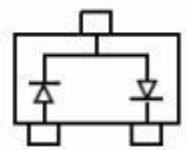
BAT54 MARKING: KL1



BAT54A MARKING: KL2



BAT54C MARKING: KL3



BAT54S MARKING: KL4

**Maximum Ratings @T<sub>A</sub>=25°C**

Parameter	Symbol	Limits	Unit
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
	V <sub>R</sub>		
DC Bias Current	I <sub>FM</sub>	200	mA
Power Dissipation	P <sub>D</sub>	200	mW
Storage temperature	T <sub>STG</sub>	-55-150	°C

**Electrical Characteristics @T<sub>A</sub>=25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	V <sub>(BR)R</sub>	30			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F1</sub>			0.24	V	I <sub>F</sub> =0.1mA
	V <sub>F2</sub>			0.32	V	I <sub>F</sub> =1mA
	V <sub>F3</sub>			0.40	V	I <sub>F</sub> =10mA
	V <sub>F4</sub>			0.50	V	I <sub>F</sub> =30mA
	V <sub>F5</sub>			1	V	I <sub>F</sub> =100mA
Reverse current	I <sub>R</sub>			2	μA	V <sub>R</sub> =25V
Diode Capacitance	C <sub>D</sub>			10	pF	V <sub>R</sub> =1V, f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			5	nS	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

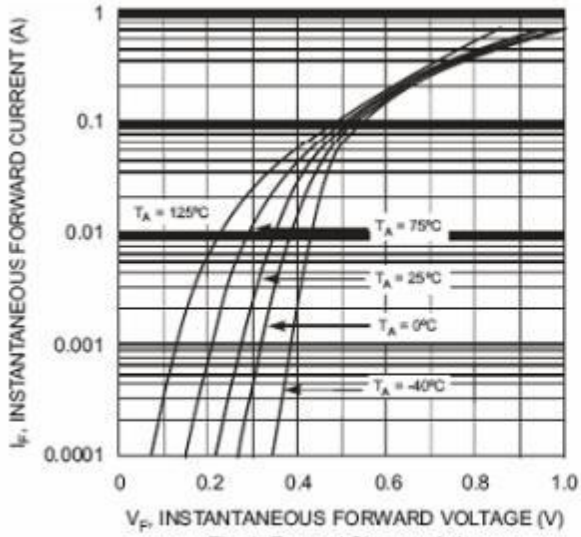


Fig. 1 Forward Characteristics

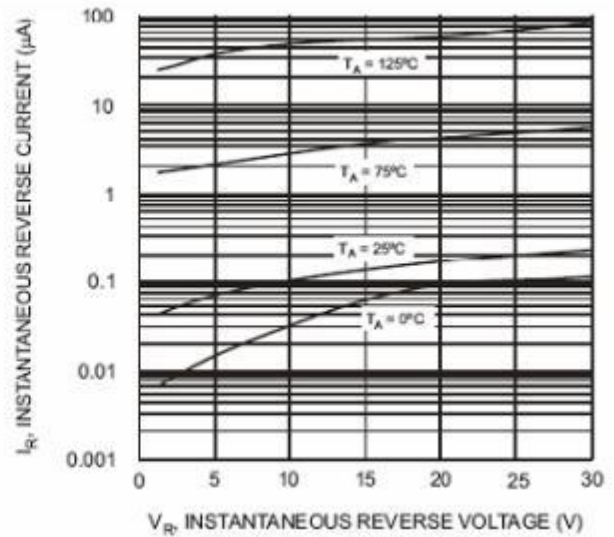


Fig. 2 Typical Reverse Characteristics

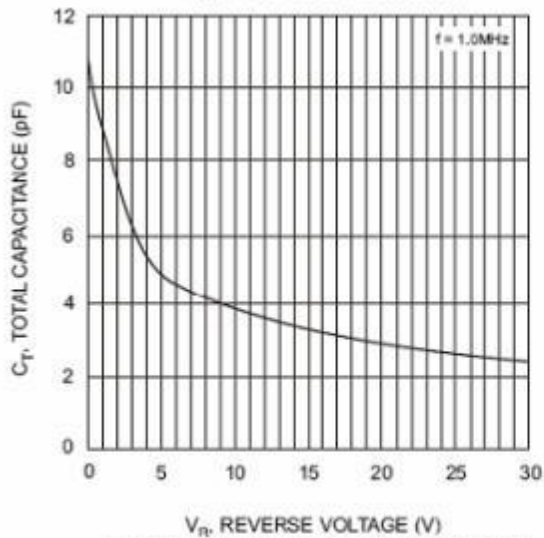


Fig. 3 Typical Capacitance vs. Reverse Voltage

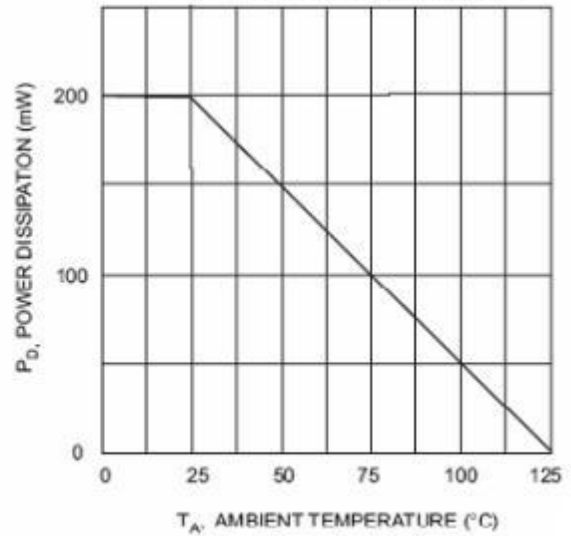
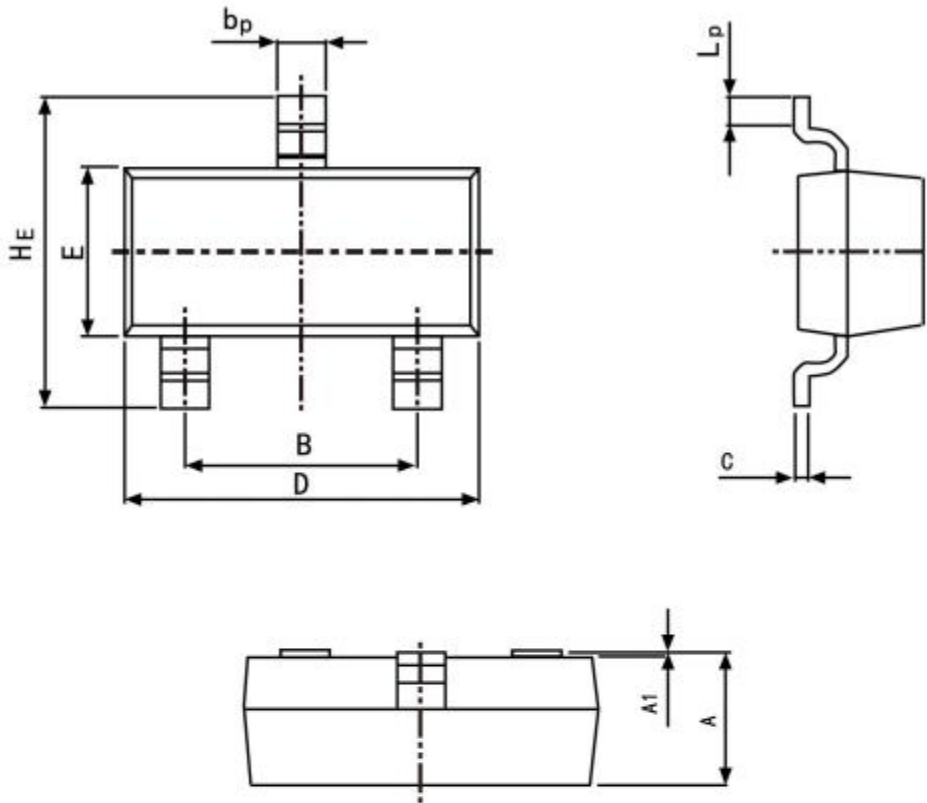


Fig. 4 Power Derating Curve

**PACKAGE OUTLINE**

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
$b_p$	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
$L_p$	0.20	0.50

### IMPORTANT NOTICE

and **SXSEMI**<sup>®</sup> are registered trademarks of **SXSEMI Electronics Co., Ltd** (SXSEMI). SXSEMI reserves the right to make changes without further notice to any products herein. SXSEMI makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SXSEMI assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. “Typical” parameters which may be provided in SXSEMI data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including “Typicals” must be validated for each customer application by customer’s technical experts. SXSEMI does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices. Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.