

FEATURES

- Extremely Fast Switching Speed

SOT-23

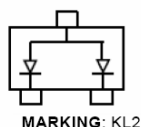
RoHS
COMPLIANT

Pb
Pb-Free

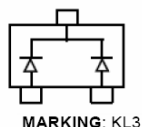
BAT54



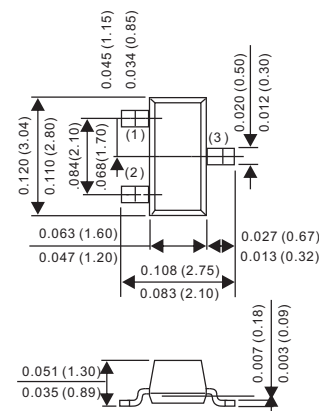
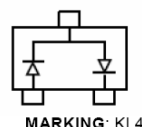
BAT54A



BAT54C



BAT54S



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	600	mA
Repetitive Peak Forward Current @ $t \leq 1\text{s}, \delta \leq 0.5$	I_{FRM}	300	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_j	125	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test conditions
Reverse voltage	$V_{(BR)}$	30			V	$I_R=100\mu\text{A}$
Forward voltage	V_F			0.24	V	$I_{F1}=0.1\text{mA}$
				0.32	V	$I_{F2}=1\text{mA}$
				0.40	V	$I_{F3}=10\text{mA}$
				0.50	V	$I_{F4}=30\text{mA}$
				1	V	$I_{F5}=100\text{mA}$
Reverse current	I_R			2	μA	$V_R=25\text{V}$
Diode capacitance	C_D			10	pF	$V_R=1\text{V}, f=1\text{MHz}$
Reverse recovery time	t_{rr}			5	ns	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$



Typical Characteristics

