

Features

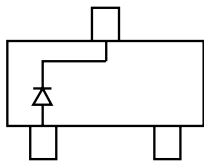
- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

BAT54W /AW /CW /SW

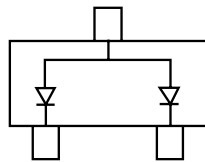


Mechanical Data

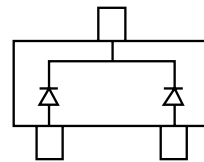
- Case: SOT-323, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Mounting Position: Any



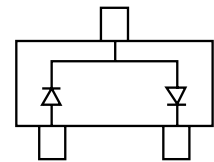
BAT54W Marking: KL5



BAT54AW Marking: KL6



BAT54CW Marking: KL7



BAT54SW Marking: KL8

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
Forward Continuous Current (Note 1)	I_F	200	mA
Repetitive Peak Forward Current (Note 1)	I_{FRM}	300	mA
Forward Surge Current (Note 1) @ t < 1.0s	I_{FSM}	600	mA
Power Dissipation (Note 1)	P_d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	30	—	—	V	$I_{RS} = 100\mu A$
Forward Voltage (Note 2)	V_F	—	—	240 320 400 500 1000	mV	$I_F = 0.1mA$ $I_F = 1mA$ $I_F = 10mA$ $I_F = 30mA$ $I_F = 100mA$
Reverse Leakage Current (Note 2)	I_R	—	—	2.0	μA	$V_R = 25V$
Junction Capacitance	C_j	—	—	10	pF	$V_R = 1.0V, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	—	—	5.0	ns	$I_F = 10mA$ through $I_R = 10mA$ to $I_R = 1.0mA, R_L = 100\Omega$

- Notes: 1. Valid Provided that terminals are kept at ambient temperature.
2. $t_p < 300\mu s$, duty cycle < 2%

BAT54W /AW /CW /SW

Typical Characteristics

