

SOD-123 Plastic-Encapsulate Diodes

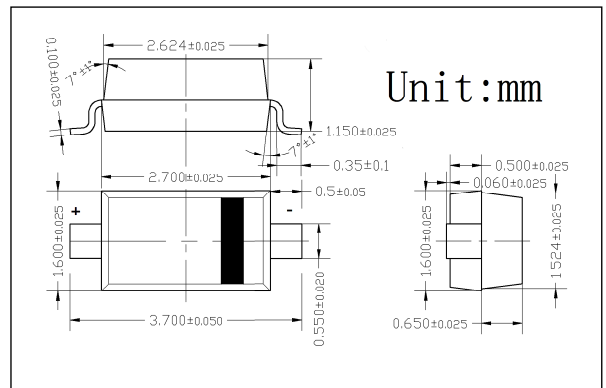
BAT54W

Features

- Low forward voltage

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits



Marking: B4

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

Symbol	Parameter	Value	Unit
V_{RRM}	Peak repetitive reverse voltage	30	V
V_R	Reverse Voltage	30	V
I_F	Forward Current	200	mA
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_{FSM}	Peak Forward Surge Current ($t_p = 10$ ms)	600	mA
P_{tot}	Total Power Dissipation	200	mW
R_{thJA}	Thermal Resistance from Junction Ambient	625	K/W
T_J	Junction Temperature	125	$^{\circ}\text{C}$
T_s	Storage Temperature Range	- 65 to + 150	$^{\circ}\text{C}$

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

Symbol	Parameter	Test Condition	Min	Max	Unit
V_F	Forward Voltage	$I_F = 0.1$ mA		240	mV
		$I_F = 1$ mA		320	
		$I_F = 10$ mA		400	
		$I_F = 30$ mA		500	
		$I_F = 100$ mA		1000	
$V_{(BR)R}$	Reverse Breakdown Voltage	$I_R = 100$ μA	30		V
I_R	Reverse Current	$V_R = 25$ V		2	μA
C_T	Total Capacitance	$V_R = 1$ V, $f = 1$ MHz		10	pF
t_{rr}	Reverse Recovery Time	$I_F = 10$ mA through $I_R = 10$ mA to $I_R = 1$ mA, $R_L = 100$ Ω		5	ns

Typical Characteristics

