

BAT54E / AE / CE / SE

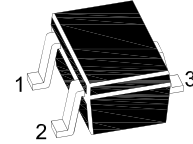
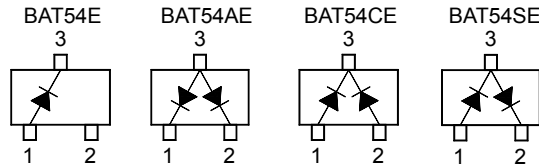
Surface Mount Schottky Barrier Diode

Features

- Low forward voltage

Applications

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



SOT-523 Plastic Package
 BAT54E Marking Code: L1
 BAT54AE Marking Code: L2
 BAT54CE Marking Code: L3
 BAT54SE Marking Code: L4

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current ($t_p = 10\text{ ms}$)	I_{FSM}	600	mA
Total Power Dissipation	P_{tot}	150	mW
Thermal Resistance from Junction Ambient	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 30\text{ mA}$ at $I_F = 100\text{ mA}$	V_F	- - - - -	240 320 400 500 1000	mV
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25\text{ V}$	I_R	-	2	μA
Total Capacitance at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	10	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ through $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$, $R_L = 100\text{ }\Omega$	t_{rr}	-	5	ns

