

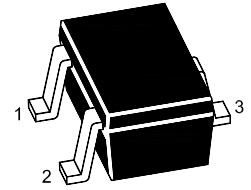


BAT54SI/ASI/CSI/SSI Schottky Barrier Rectifiers

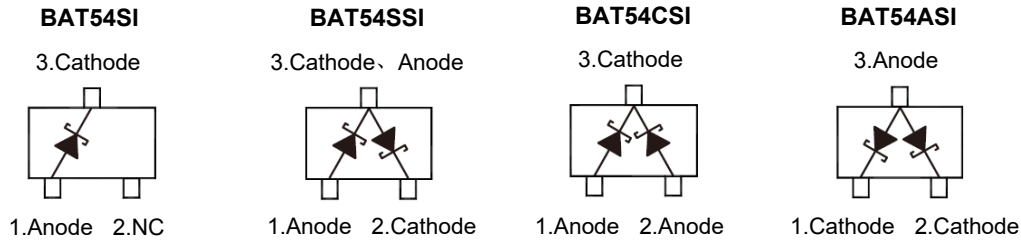
Features

- Low forward voltage

SOT-323



Equivalent Circuit



Marking Code :

BAT54SI : L4

BAT54ASI : L42

BAT54CSI : L43

BAT54SSI : L44

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

Parameter	Symbols	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Peak Forward Surge Current at $t_P=10\text{ms}$	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^{\circ}\text{C}$



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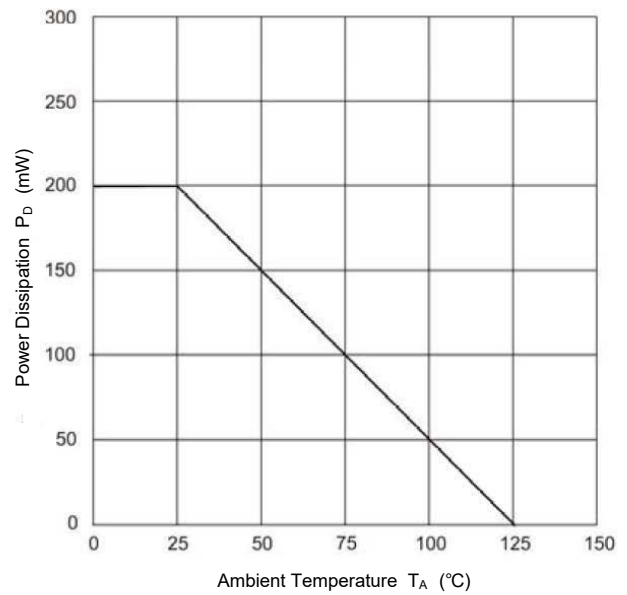
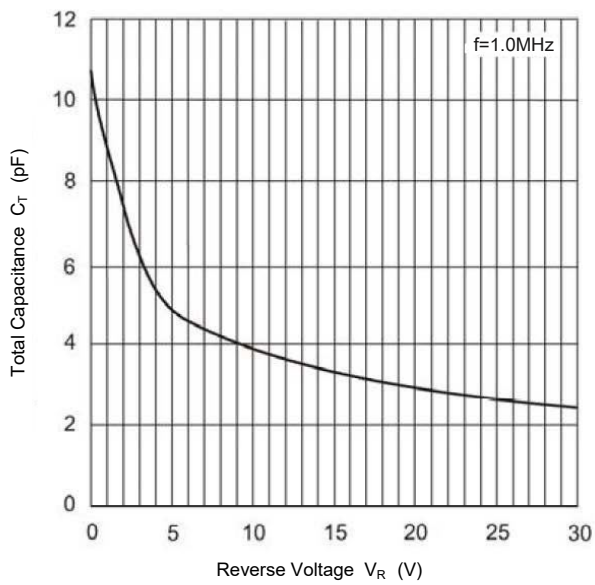
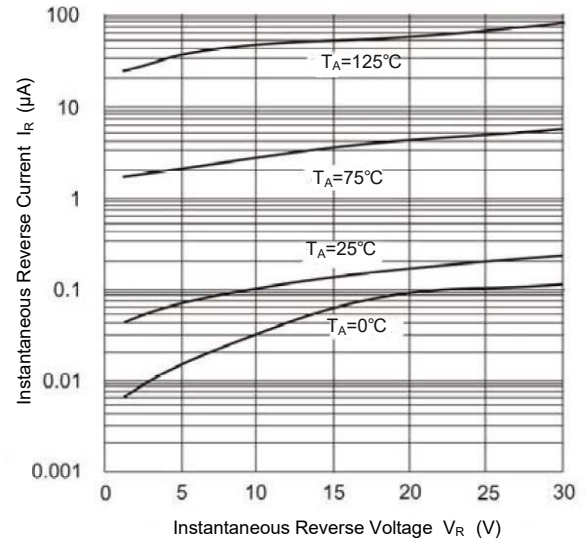
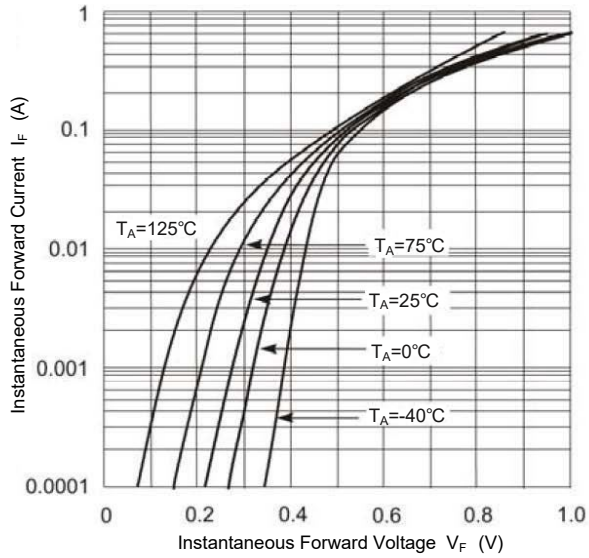
Schottky Barrier Rectifiers

Electrical Characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbols	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 Current at $V_R = 25 \text{ V}$	I_R	--	2	μA
Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{R(BR)}$	30	--	V
Total Capacitance at $V_R = 1 \text{ V}$, $f = 1 \text{ MHz}$	C_T	--	10	pF
Reverse Recovery Time at $I_F = 10 \text{ mA}$, $I_R = 10 \text{ mA}$ to $I_R = 1 \text{ mA}$, $R_L = 100 \Omega$	T_{rr}	--	5	ns



Typical Characteristic Curves





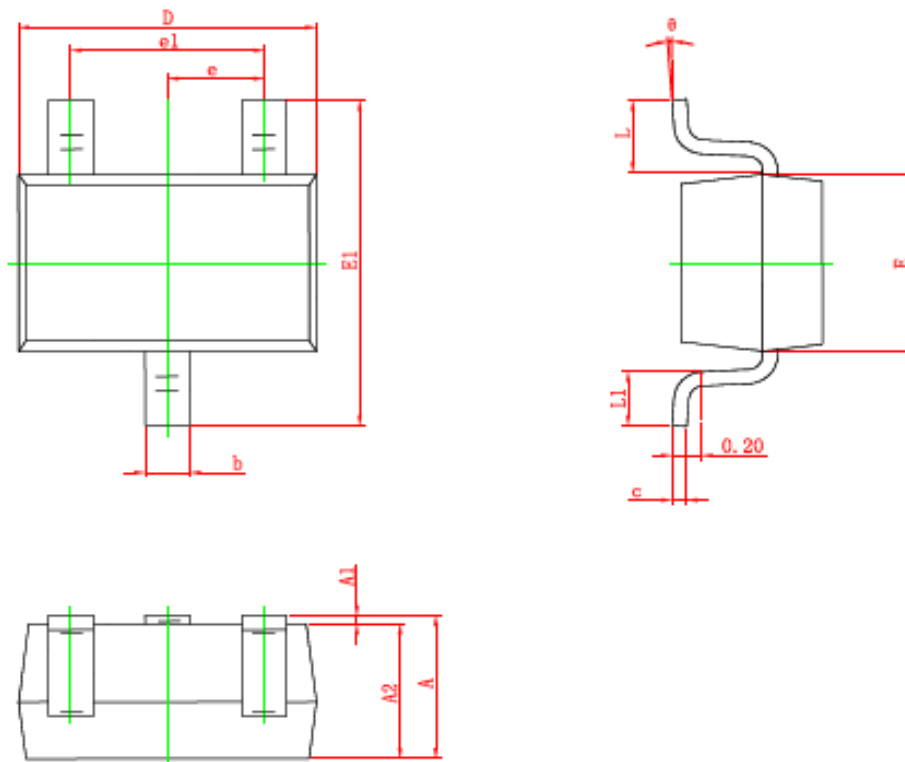
BAT54SI/ASI/CSI/SSI

Schottky Barrier Rectifiers

Package Outline

SOT-323

Dimensions in mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°