



BAT54T

Schottky Barrier Diode

Features

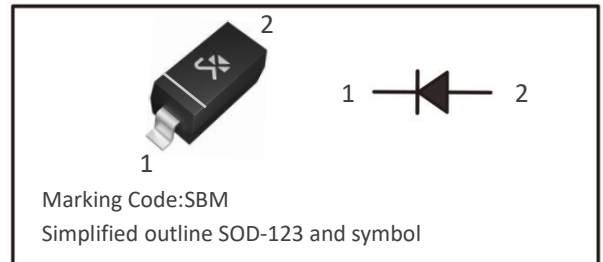
- Low turn-on voltage
- Fast switching
- Ultra-small surface mount package
- PN junction guard ring for transient and ESD protection

Application

- Schottky barrier detector and switching diodes

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings@T_a = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	30	V
Average Rectified Output Current	I _O	100	mA
Forward Continuous Current	I _F	200	mA
Repetitive Peak Forward Current	I _{FRM}	300	mA
Non-Repetitive Peak Forward Surge Current	I _{FSM}	600	mA
Power Dissipation	P _D	200	mW
Thermal Resistance Junction to Ambient	R _{θJA}	500	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55~+125	°C

Electrical Characteristics@T_a = 25 °C, unless specified otherwise

Parameter	Symbol	Test Condition	Min	Max	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =100μA	30	-	V
Peak Reverse Current	I _R	V _R =25V	-	2	μA
Forward Voltage	V _F	I _F =0.1mA	-	0.24	V
		I _F =1mA	-	0.32	
		I _F =10mA	-	0.4	
		I _F =30mA	-	0.5	
		I _F =100mA	-	1	
Total Capacitance	C _T	V _R =1V, f=1MHz	-	10	pF
Reveres Recovery Time	t _{rr}	I _F =I _R =10mA, I _{rr} =0.1*I _R , R _L =100Ω	-	5	ns



Typical Characteristics

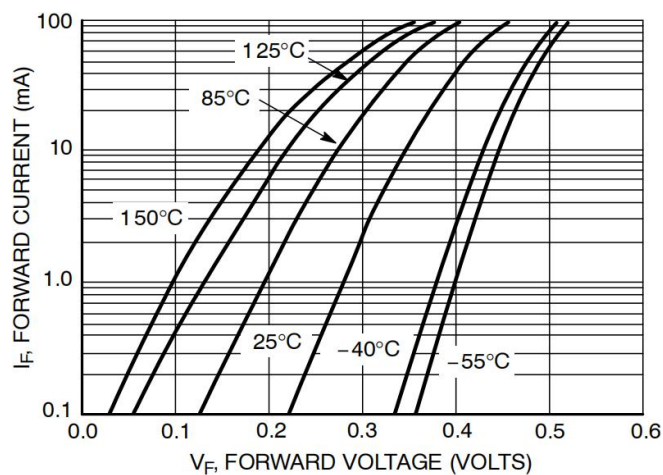


Figure 1. Forward Voltage

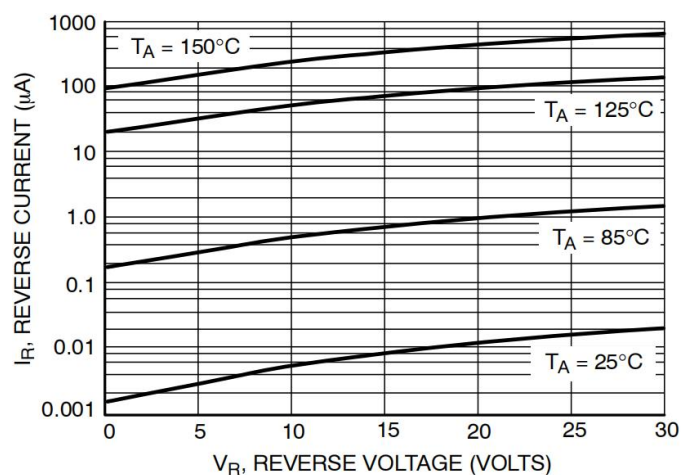


Figure 2. Leakage Current

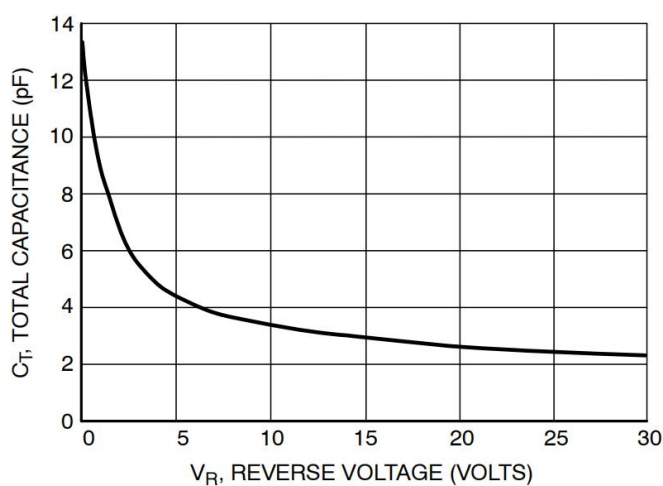


Figure 3. Total Capacitance

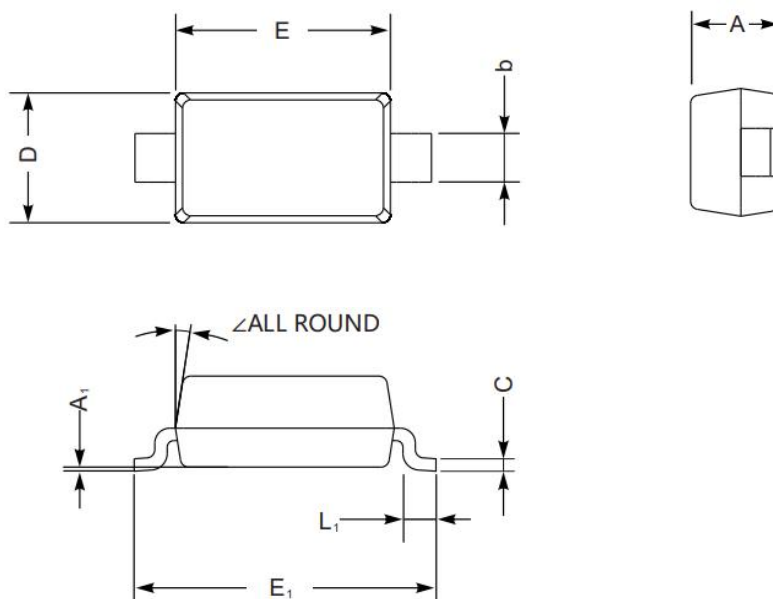


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Package Information

SOD-123

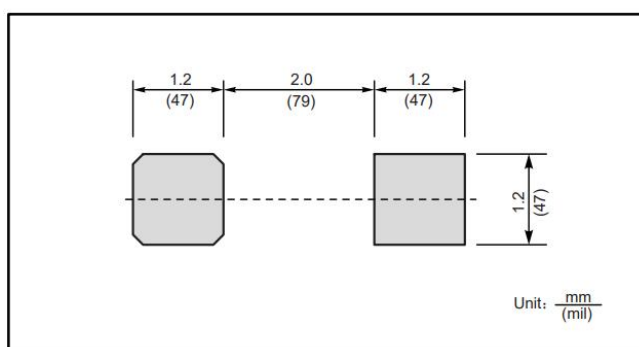
Dimensions in mm

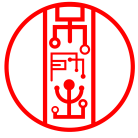


SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size





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