



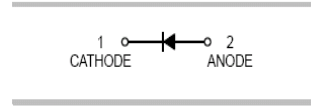
BAT54H

Small Signal Schottky Barrier Diode



Features

- Extremely fast switching speed
- Low forward voltage



Mechanical Data

- Case: SOD-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAT54H	SOD-323	3000 pcs / Tape & Reel	JV

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V _R	30	V
Maximum Average Forward Output Current	I _{F(AV)}	0.2	A
Peak Forward Surge Current (1s single half sine-wave)	I _{FSM}	0.6	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	424	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	234	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	312	°C/W
Operating Junction Temperature	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-65 ~ +125	°C



Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 100μA	30	-	-	V
Forward Voltage ²	V _F	I _F = 0.1mA	-	-	240	mV
		I _F = 1mA	-	-	320	mV
		I _F = 10mA	-	-	400	mV
		I _F = 30mA	-	-	500	mV
		I _F = 100mA	-	-	800	mV
Maximum Peak Reverse Current ³	I _R	V _R = 25V	-	-	50	μA
Reverse Recovery Time	t _{rr}	I _F = I _R = 10mA I _{rr} = 0.1X I _R , R _L = 100Ω	-	-	5	ns
Capacitance Between Terminals	C _T	V _R = 1V, f = 1MHz	-	-	10	pF

Notes:

1. The data tested by surface mounted on a 15mm * 15mm * 1mm FR4-epoxy P.C.B
2. Pulse test, t_p ≤ 300μs
3. Pulse test, t_p ≤ 5ms

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

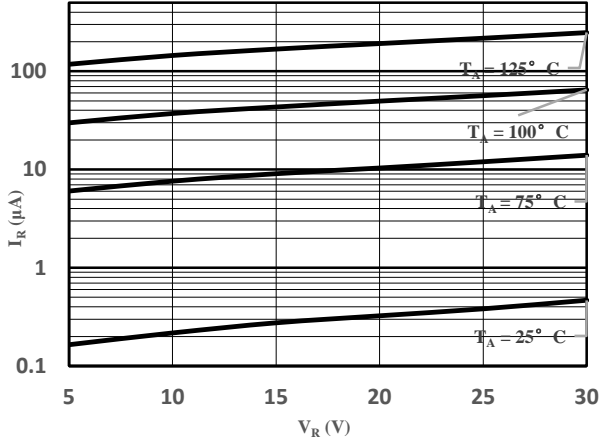


Fig 1 Typical Reverse Characteristic

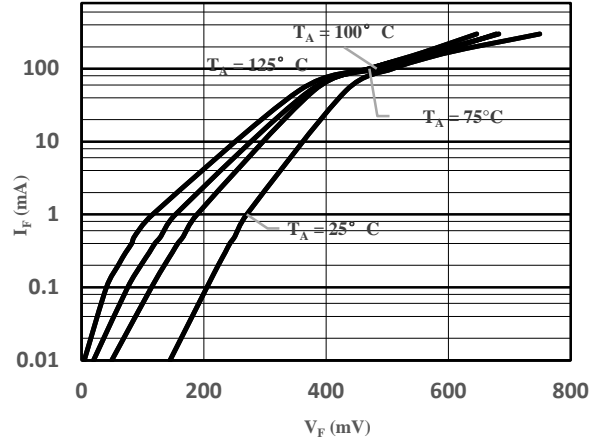


Fig 2 Typical Forward Characteristics

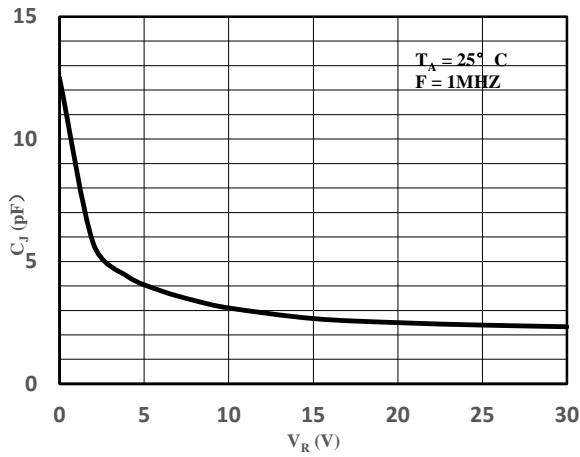


Fig 3 Capacitance Characteristics

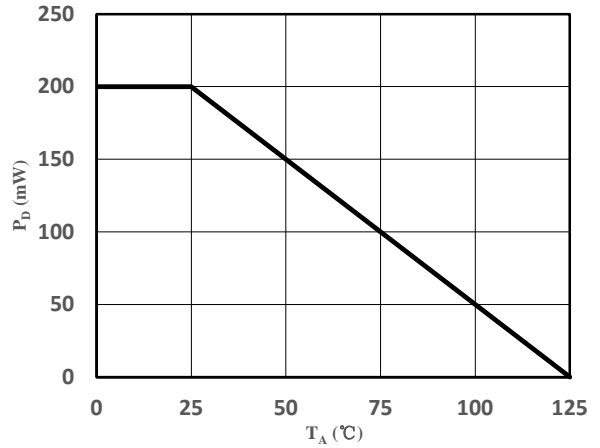
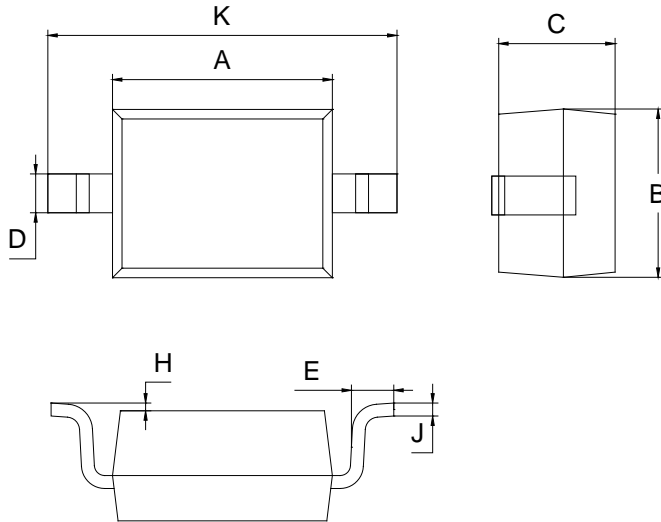


Fig 4 Derating Curve



Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (Unit: mm)

SOD-323

