BAT54C

DATASHEET

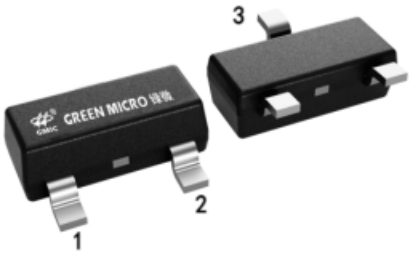
Specification Revision History:

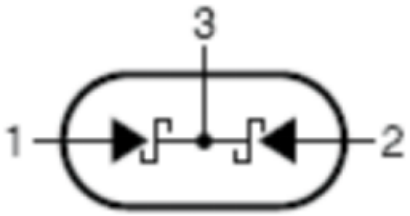
Version	Date	Description
V1.0	2021/10	New
V1.1	2022/11	Modify Ordering Information
V1.2	2024/02	Modify Ordering Information
V1.3	2025/05	Add application precautions and overall typesetting.

Features

※Schottky Diodes
※Low forward voltage
※Guard ring protected
※Small plastic SMD package.

Simplified outline





SOT-23

Ordering Information

Product Model	Package Type	Marking	Packing	Packing Qty
BAT54C-GM	SOT-23	KL3	REEL	3000PCS/REEL

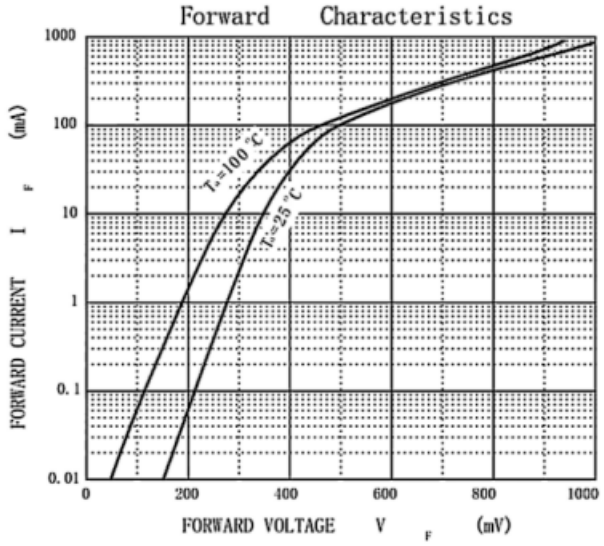
Absolute Maximum Ratings Ta = 25 ℃

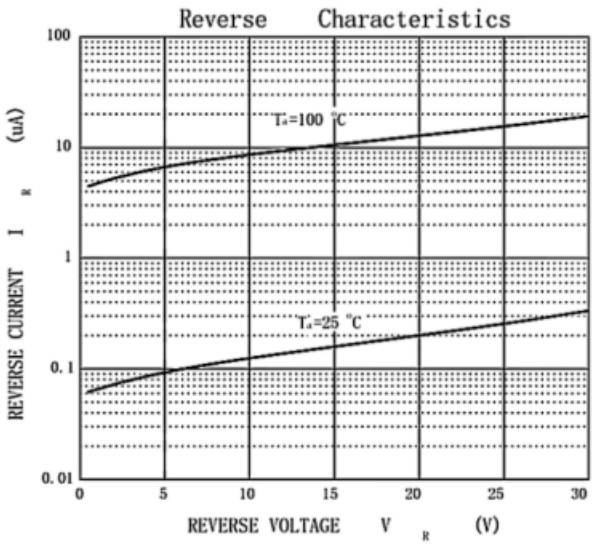
Parameter	Symbol	Rating	Unit
Maximum Repetitive Reverse Voltage	V_{RRM}	30	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current Pulse width = 1.0 second	I_{FSM}	600	mA
Power Dissipation	PD	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	430	°C/W
Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Junction Temperature	T_J	150	°C

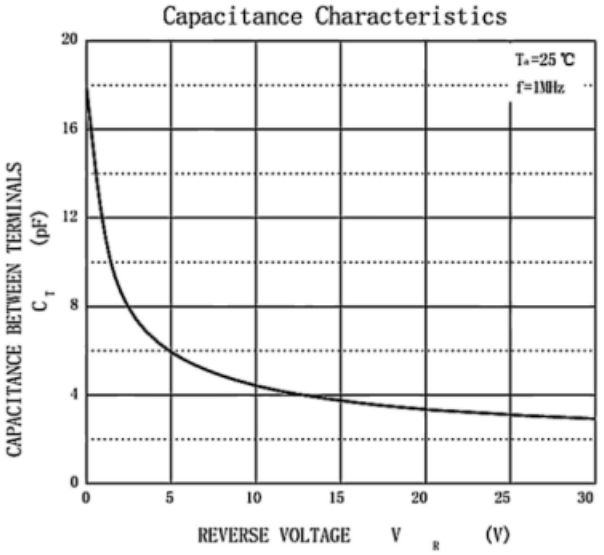
Electrical Characteristics Ta = 25 ℃

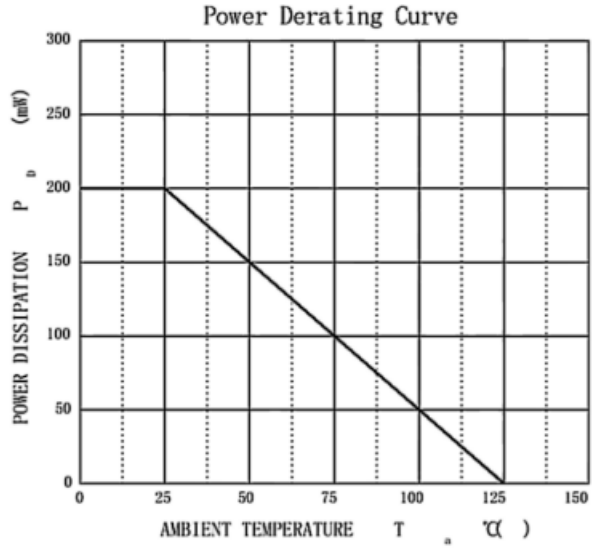
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Breakdown Voltage	V_R	IR = 100 μ A	30			V
Forward Voltage	V_F	IF = 0.1 mA			240	mV
		IF = 1 mA			320	mV
		IF = 10 mA			400	mV
		IF = 30 mA			500	mV
		IF = 100 mA			0.8	V
Reverse Current	I_R	V_R =25 V			2	μA
Total Capacitance	C_T	V_R = 1V, f = 1.0 MHz			10	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10 mA, I_{RR} = 1.0 mA, R_L = 100Ω			5	ns

Typical Characteristics



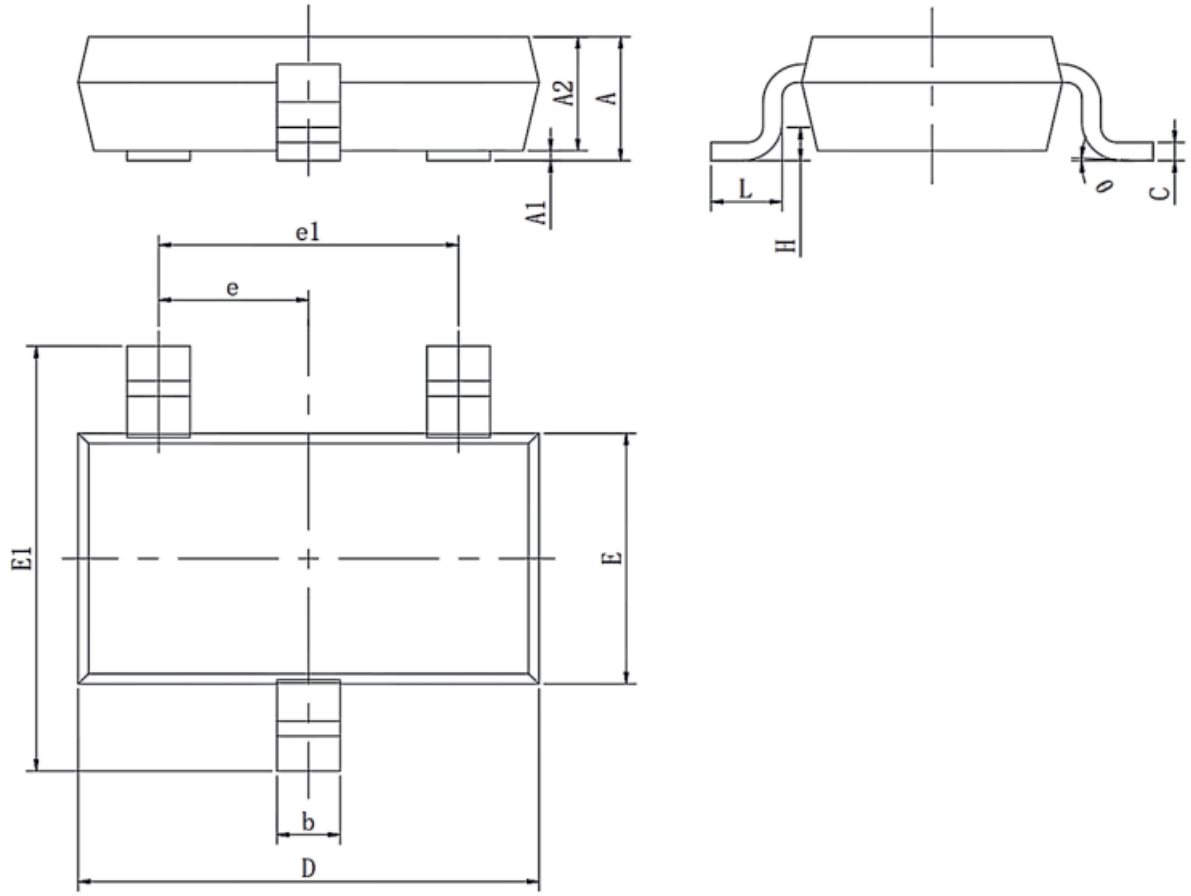






Outline Dimensions

SOT-23 Unit : mm



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
C	0.080	0.200	0.003	0.008
D	2.800	3.020	0.110	0.119
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.95 (BSC)		0.037(BSC)	
e1	1.90 (BSC)		0.075(BSC)	
L	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

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