

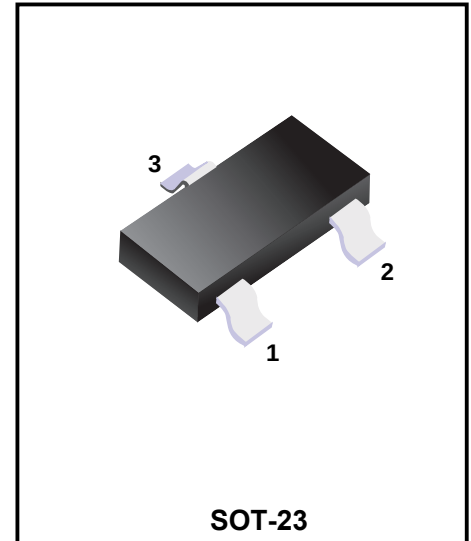
Plastic-Encapsulate Schottky Barrier Diode

Features

- ◆High Current Capability
- ◆Low Forward Voltage Drop
- ◆Extremely Fast Switching Speed

Mechanical Data

- ◆Case: SOT-23
- ◆Epoxy UL: 94V-0
- ◆Mounting Position: Any
- ◆High temperature soldering guaranteed: 260°C/10s
- ◆We declare that the material of product compliant with RoHS requirements and Halogen free



MARKING:

BAT54	BAT54A	BAT54C	BAT54S

Maximum Ratings & Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

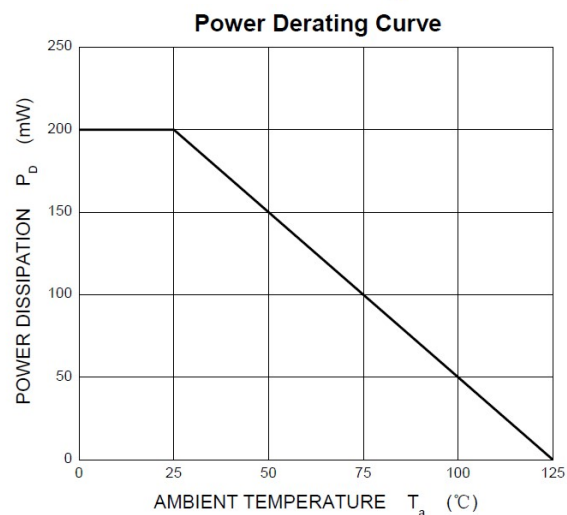
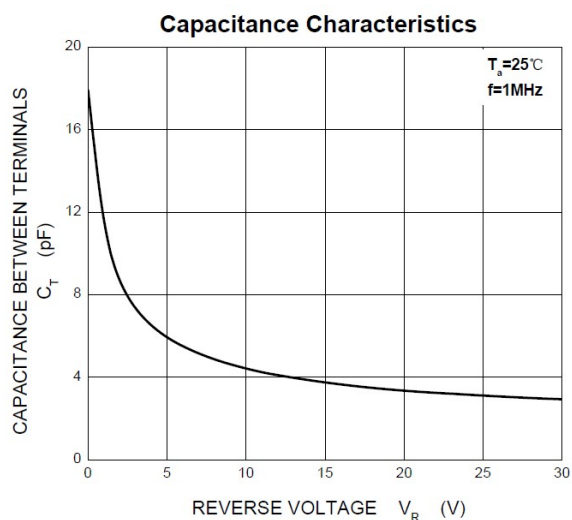
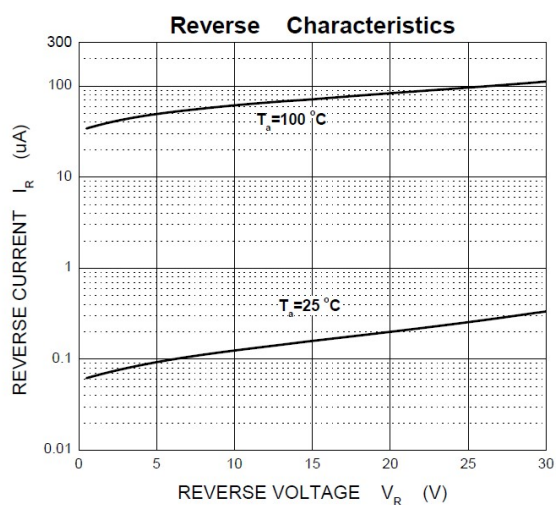
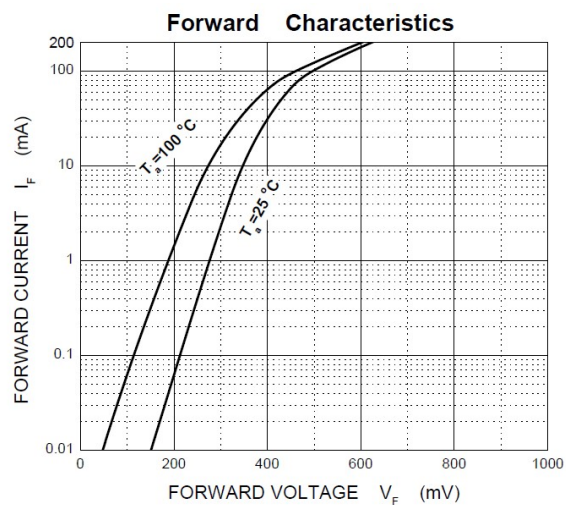
Characteristics	Symbols	Value	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum RMS voltage	V_{RMS}	30	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current	I_{FM}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I_{FSM}	600	mA
Typical thermal resistance	$R_{\theta JA}, R_{\theta JC}$	500/360	°C/W
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	125	°C
Storage temperature range	T_{STG}	-50 to +150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Characteristics	Test Condition	Symbols	Min	Typ	Max	Units
Maximum forward voltage	$I_F = 0.1mA$	V_{F1}	-	-	240	mV
	$I_F = 1.0mA$	V_{F2}	-	-	320	mV
	$I_F = 10mA$	V_{F3}	-	-	400	mV
	$I_F = 30mA$	V_{F4}	-	-	500	mV
	$I_F = 100mA$	V_{F5}	-	-	1000	mV
Maximum reverse breakdown voltage	$I_R = 100\mu A$	V_R	30	-	-	V
Maximum reverse current	$V_R = 25V$	I_R	-	-	2.0	uA
Type junction capacitance	$V_R = 1.0V, f = 1MHz$	C_j	-	-	10	pF
Reverse Recovery time	$I_F = I_R = 10mA, I_{rr} = 0.1X_{IR}, RL = 100\Omega$	trr	-	-	5	ns

Typical characteristics

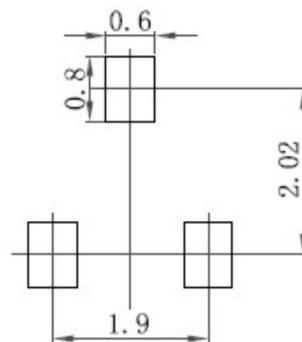


Package Dimensions

SOT-23

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



Disclaimer

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