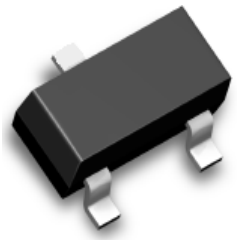
BAT54/BAT54A/BAT54C/BAT54S

Schottky rectifier

Features

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.



SOT-23

Mechanical Date

- **Case:SOT-23, Plastic**
- **Terminals:** Solder plated, solderable per MIL-STD-202, Method 208
- **Approx. Weight:** 0.008 gram

Major Ratings and Characteristics

$I_{F(AV)}$	**0.2A**
V_{RRM}	**30 V**
I_{FSM}	**0.6A**
T_j **max.**	**125 °C**

Maximum Ratings & Thermal Characteristics

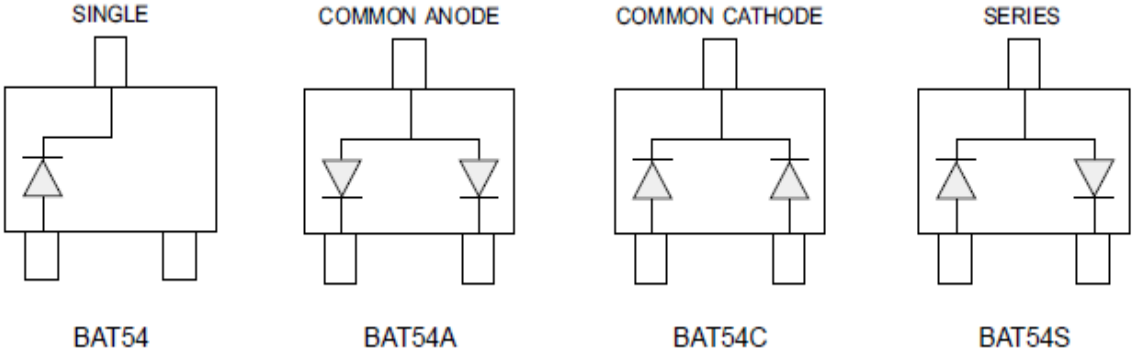
Ratings at 25OC ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Items	Symbol	BAT54/BAT54A/BAT54C/BAT54S	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Maximum Average Forward Current at Ta=25℃	I_O	0.2	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	0.6	A
Thermal resistance from junction to Ambient	$R_{\theta JA}$	635	℃/W
Operating junction temperature range	T_J	–65 to +125	℃
Storage temperature range	T_{STG}	–65 to +125	℃

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I_F=0.001A I_F=0.1A	V_F	-	-	0.32 1.0	V
Reverse current	V_R=25V	I_R	-	-	0.002	mA

Structure



Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

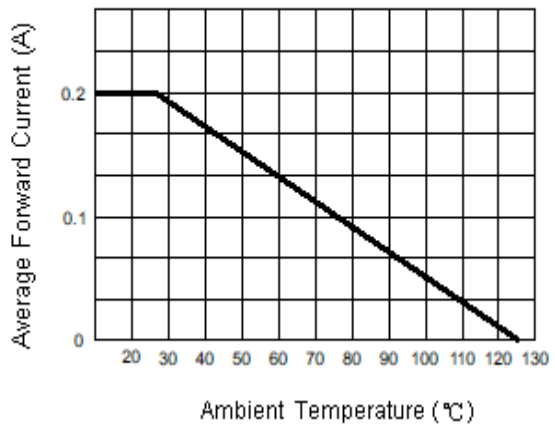


Fig.2 Typical Instantaneous Forward Characteristics

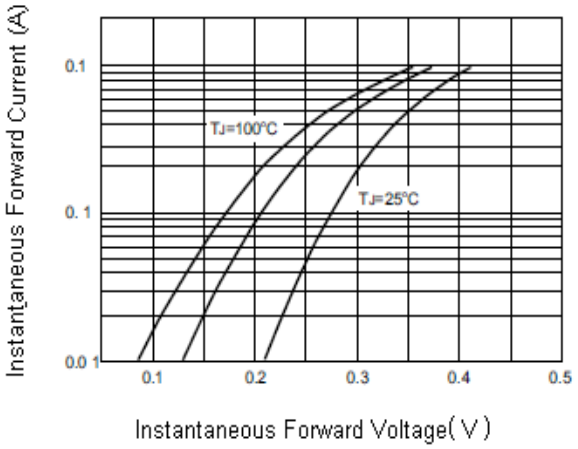


Fig.3 Typical Reverse Leakage Characteristics

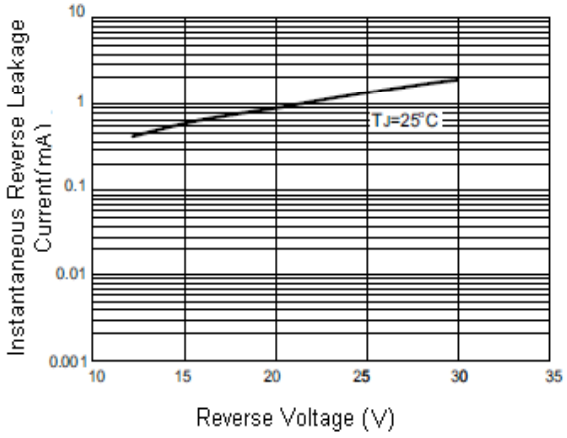
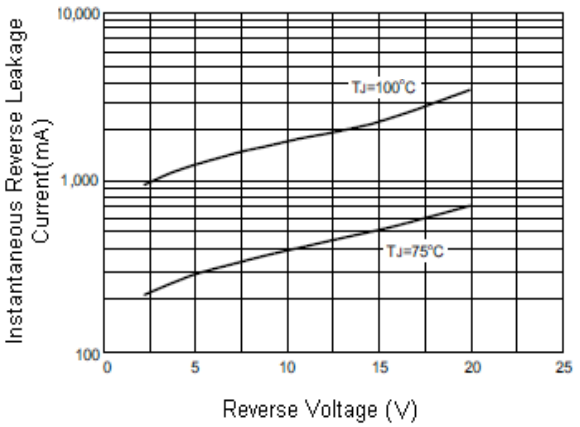
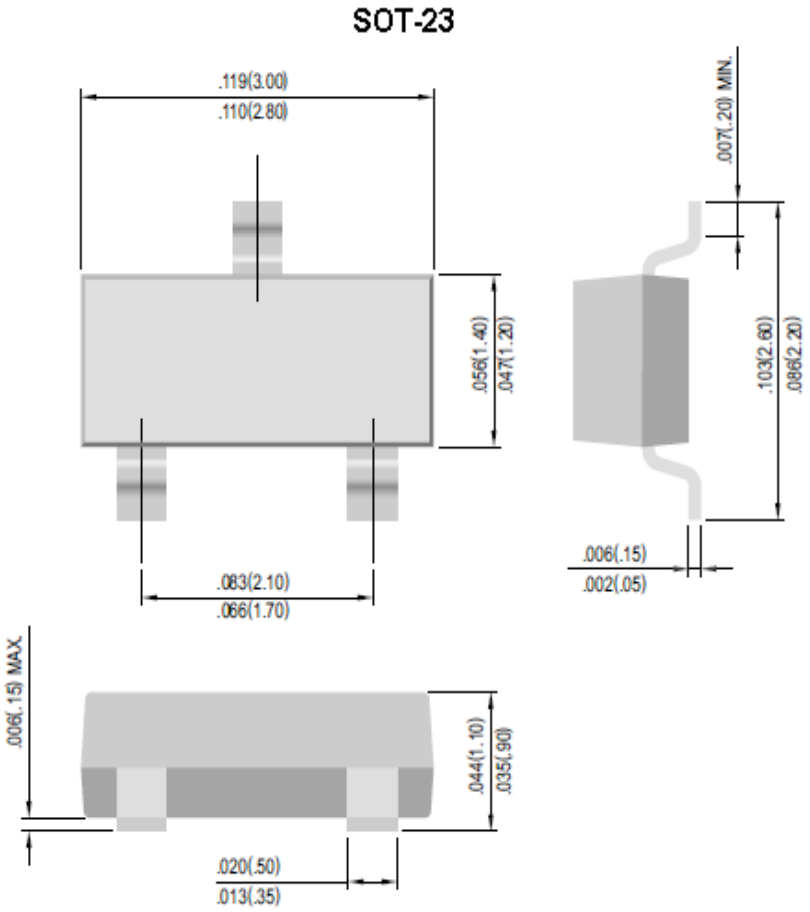


Fig.4 Typical Reverse Leakage Characteristics

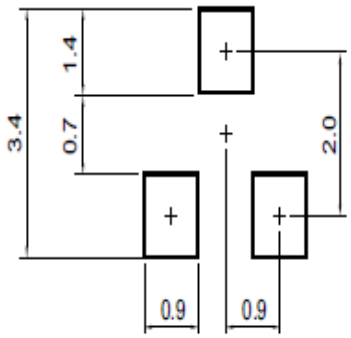


Package Outline



Dimensions in inches and (millimeters)

Suggested Mounting Pad Layout



Dimensions in (millimeters)