



#### SURFACE MOUNT SCHOTTKY BARRIER

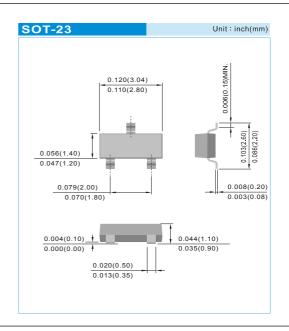
VOLTAGE 30 Volt CURRENT 0.2 Ampere

#### **FEATURES**

- · Low turn-on voltage
- · Fast switching
- · PN Junction Guard Ring for Transient and ESD Protection.
- · Lead free in compliance with EU RoHS 2.0
- · Green molding compound as per IEC 61249 standard

#### **MECHANICAL DATA**

- · Case: SOT-23, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- · Approx. Weight: 0.0003 ounces, 0.0084 grams

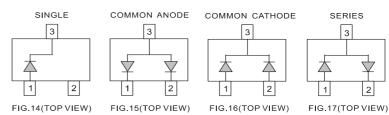


#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Parameter	Symbol	BAT54	BAT54A	BAT54C	BAT54S	Units
Forward Power Dissipation@T <sub>A</sub> =25°C	P <sub>D</sub>	225			mW	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30			V	
Maximum Average Forward Current at TA=75°C	I <sub>o</sub>	0.2			А	
Repetitive Peak Forward Current (tp=8.3ms,50%Duty Cycle)	I <sub>FRM</sub>	300			mA	
Peak Forward Surge Current, 1s	I <sub>FSM</sub>	0.6			А	
Maximum Instantaneous Forward Voltage $(I_F = 1 \text{ mA})$ $(I_F = 100 \text{ mA})$	V <sub>F</sub>	0.32 0.6			V	
Typical Instantaneous Forward Voltage @ I <sub>F</sub> =0.1mA	V <sub>F</sub>	0.22			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage@V <sub>R</sub> =25V	I <sub>R</sub>	2			μΑ	
Junction Capacitance at V <sub>R</sub> =1V	C¹	10			pF	
Thermal Resistance, Junction to Ambient	$R_{_{\theta JA}}$	500			°C/ W	
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +125			°C	
Circuit Figure	-	Single	Common Anode	Common Cathode	Series	-

Note : 1.  $I_F$ =10mA through  $I_R$ =10mA to  $I_R$ =1mA,  $R_I$ =100 $\Omega$ .



September 4,2017-REV.10 PAGE . 1





#### TYPICAL CHARACTERISTIC CURVES

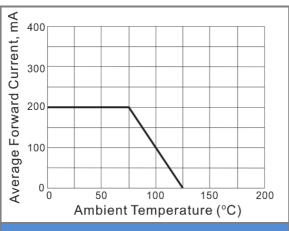


Fig.1 Forward Current Derating Curve

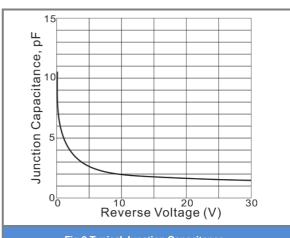


Fig.2 Typical Junction Capacitance

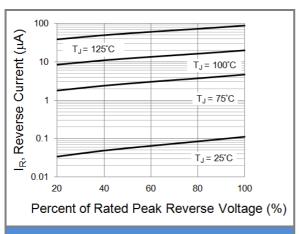
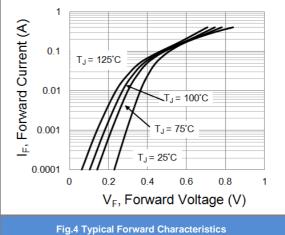


Fig.3 Typical Reverse Characteristics



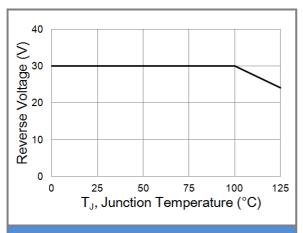


Fig.5 Operating Temperature Derating Curve

September 4,2017-REV.10 PAGE . 2

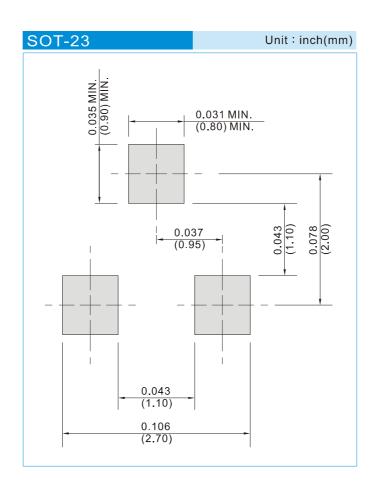




#### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing Type	Marking	Version
BAT54_R1_00001	SOT-23	3K pcs / 7" reel	L4	Halogen free
BAT54_R2_00001	SOT-23	12K pcs / 13" reel	L4	Halogen free
BAT54A_R1_00001	SOT-23	3K pcs / 7" reel	L42	Halogen free
BAT54A_R2_00001	SOT-23	12K pcs / 13" reel	L42	Halogen free
BAT54C_R1_00001	SOT-23	3K pcs / 7" reel	L43	Halogen free
BAT54C_R2_00001	SOT-23	12K pcs / 13" reel	L43	Halogen free
BAT54S_R1_00001	SOT-23	3K pcs / 7" reel	L44	Halogen free
BAT54S_R2_00001	SOT-23	12K pcs / 13" reel	L44	Halogen free

#### **MOUNTING PAD LAYOUT**



September 4,2017-REV.10 PAGE . 3





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September 4,2017-REV.10 PAGE . 4