

## Small Signal Schottky Rectifier



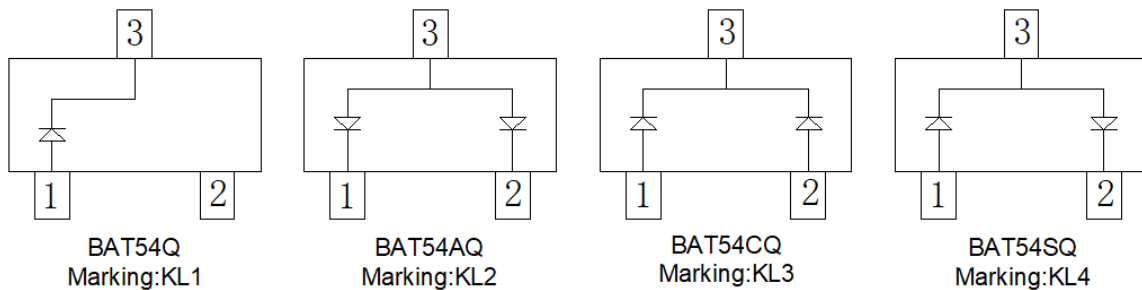
### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Low Forward Voltage Schottky Rectifier
- VR 30V
- IFAV 0.2A
- Part no. with suffix "Q" means AEC-Q101 qualified

### Mechanical Data

- **Case:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

### SOT-23



### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Voltage	V <sub>R</sub>	V		30
Average Forward Current	I <sub>FAV</sub>	mA		200
Non-repetitive Peak Forward Surge Current	I <sub>FSM</sub>	A	square wave tp<10ms	0.6
Power Dissipation	P <sub>D</sub>	mW		200
Thermal Resistance Junction to Ambient	R <sub>thJA</sub>	°C/W		500
Junction Temperature	T <sub>j</sub>	°C		-55 to +125
Storage Temperature Range	T <sub>stg</sub>	°C		-55 to +150

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =0.1mA	-	0.24
			I <sub>F</sub> =1.0mA	-	0.32
			I <sub>F</sub> =10mA	-	0.40
			I <sub>F</sub> =30mA	-	0.50



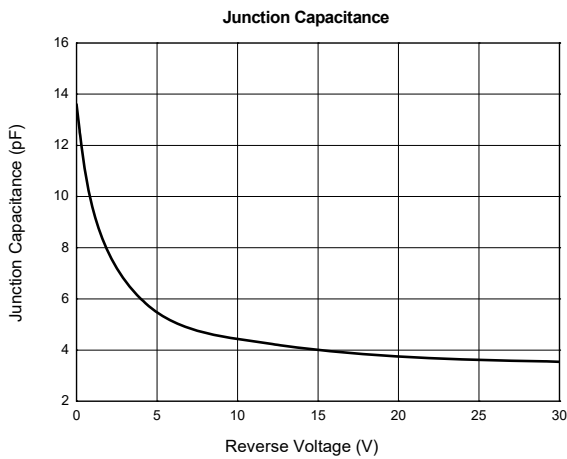
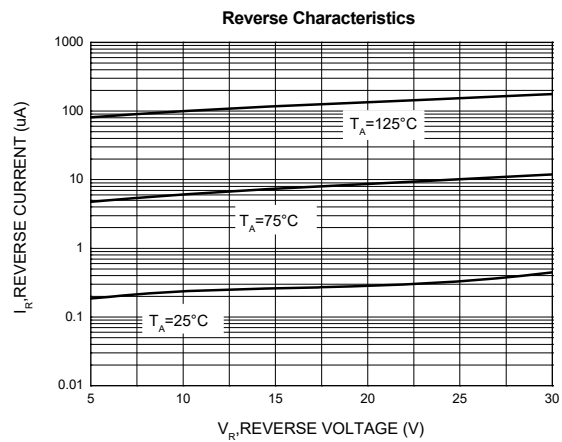
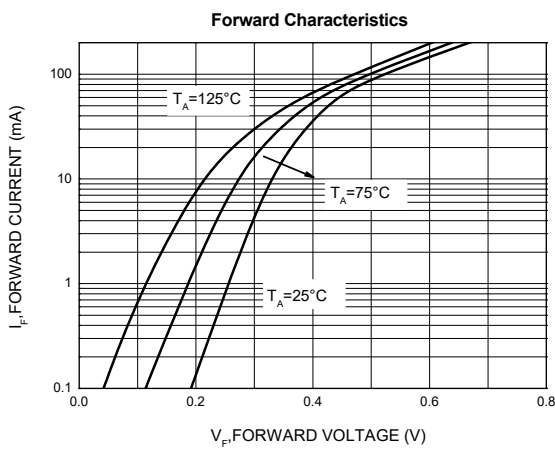
# BAT54Q&BAT54AQ&BAT54CQ&BAT54SQ

			$I_F=100\text{mA}$	-	1.0
Reverse Current	$I_R$	$\mu\text{A}$	$V_R=25\text{V}$	-	2
Junction Capacitance	$C_J$	$\text{pF}$	$V_R=1\text{V}, f=1\text{MHz}$	-	10
Reverse Recovery Time	$t_{rr}$	ns	$I_F=I_R=10\text{mA}, I_{rr}=1\text{mA}, R_L=100\Omega$	-	5

## Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAT54Q&BAT54AQ&BAT54CQ&BAT54SQ	F2	Approximate 0.01	3000	30000	120000	7" reel

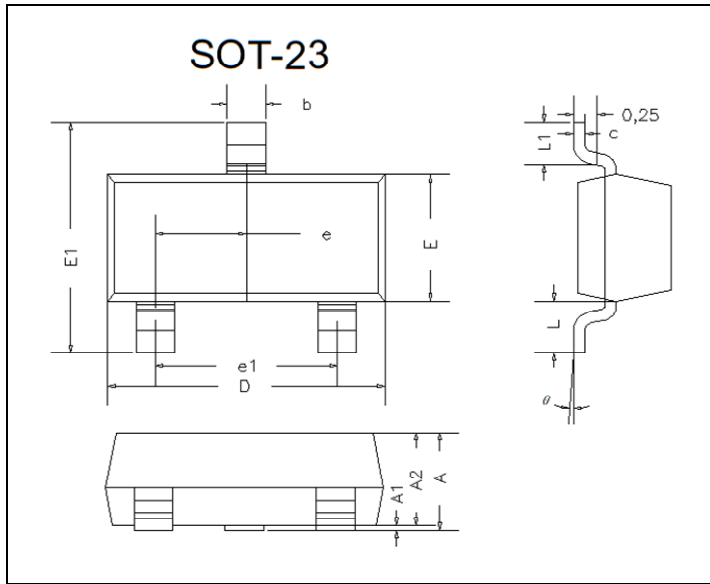
## Characteristics (Typical)





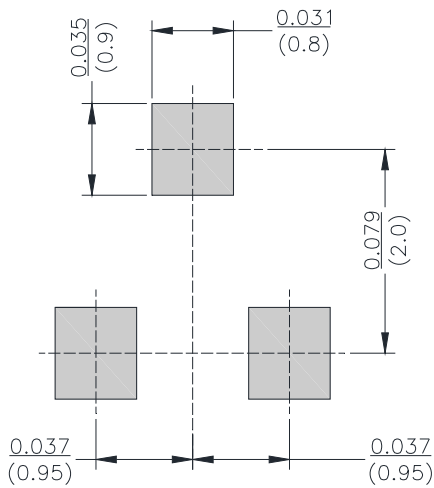
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## ■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.045	0.90	1.15	
A1	0.000	0.004	0.00	0.10	
A2	0.035	0.041	0.90	1.05	
b	0.012	0.020	0.30	0.50	
c	0.004	0.008	0.10	0.20	
D	0.110	0.118	2.80	3.00	
E	0.047	0.055	1.20	1.40	
E1	0.089	0.100	2.25	2.55	
e	0.370TYP		0.95TYP		
e1	0.071	0.079	1.80	2.00	
L	0.220REF		0.55REF		
L1	0.012	0.020	0.30	0.50	
θ	0°	8°	0°	8°	

## ■ Soldering Footprint



Unit:  $\frac{\text{inch}}{\text{mm}}$



## BAT54Q&BAT54AQ&BAT54CQ&BAT54SQ

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