

Small Signal Schottky Rectifier



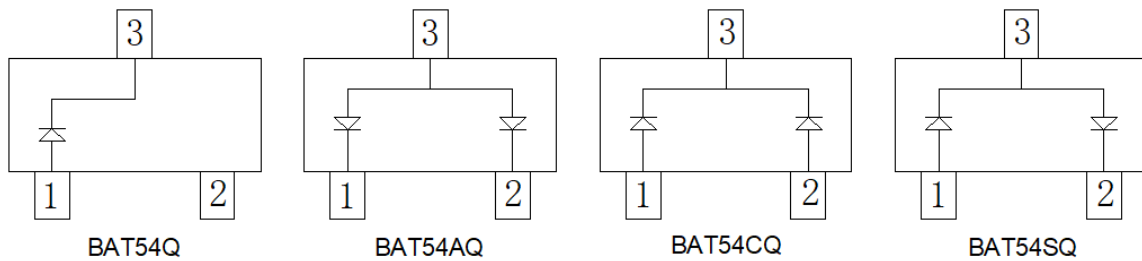
SOT-23

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



■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Voltage	V_R	V		30
Average Forward Current	I_{FAV}	mA		200
Non-repetitive Peak Forward Surge Current	I_{FSM}	A	square wave $t_p < 10\text{ms}$	0.6
Power Dissipation	P_D	mW		200
Thermal Resistance Junction to Ambient	R_{thJA}	$^{\circ}\text{C}/\text{W}$		500
Junction Temperature	T_j	$^{\circ}\text{C}$		-55 to +125
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150



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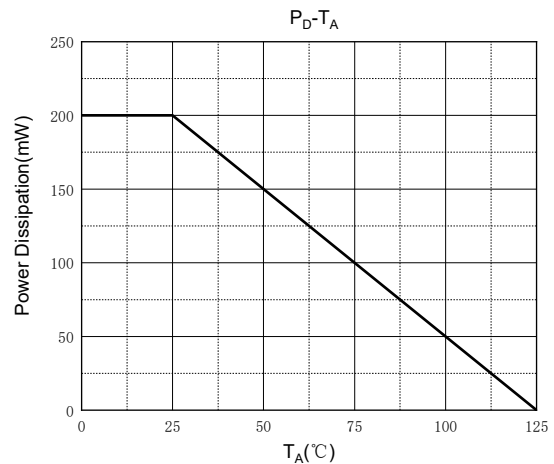
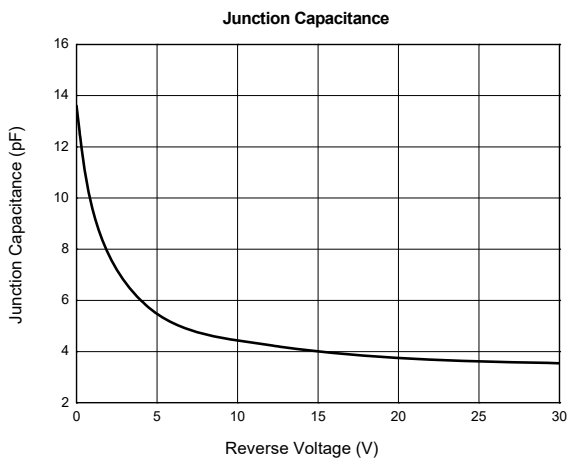
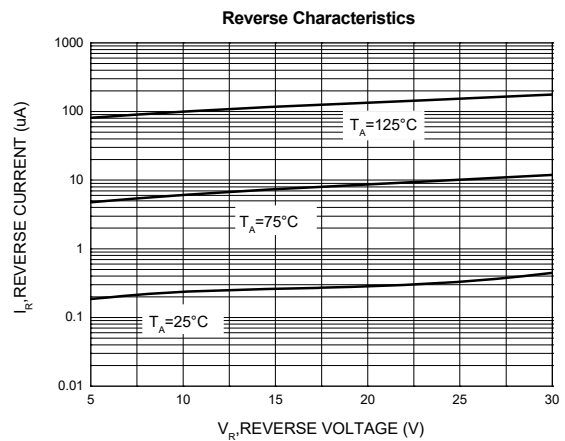
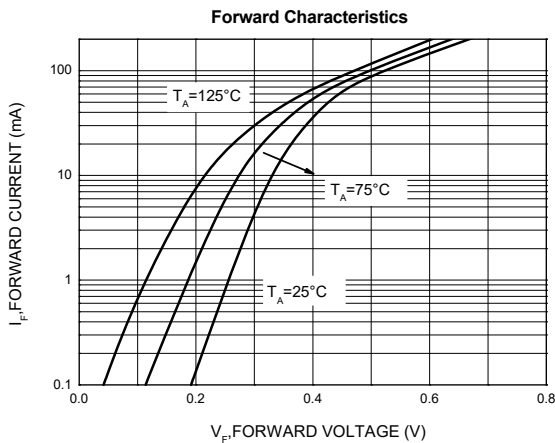
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V _F	V	I _F =0.1mA	-	0.24
			I _F =1.0mA	-	0.32
			I _F =10mA	-	0.40
			I _F =30mA	-	0.50
			I _F =100mA	-	1.0
Reverse Current	I _R	μA	V _R =25V	-	2
Junction Capacitance	C _J	pF	V _R =1 V, f = 1MHz	-	10
Reverse Recovery Time	t _{rr}	ns	I _F =I _R =10mA, I _{rr} =1mA, R _L =100Ω	-	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

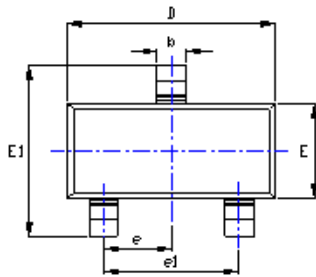
■ Characteristics (Typical)



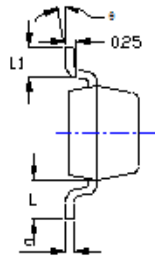


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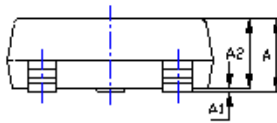
■ Outline Dimensions



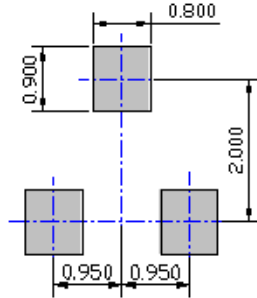
TOP VIEW



SIDE VIEW



SIDE VIEW



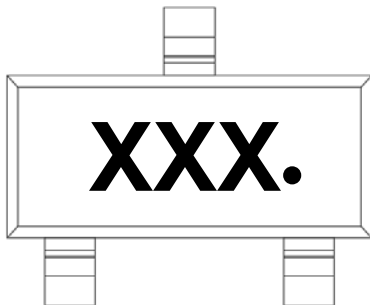
UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
φ	0°	8°	0°	8°

NOTE:
 1. PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
 2. TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
 3. THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

■ Marking Information



PN	Marking Code
BAT54Q	KL1.
BAT54AQ	KL2.
BAT54CQ	KL3.
BAT54SQ	KL4.

Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. XXX. is Marking Code
4. Body color: Black



BAT54Q&BAT54AQ&BAT54CQ&BAT54SQ

Disclaimer

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