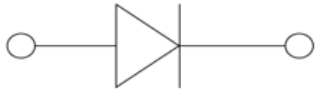


## Small Signal Schottky Diode

### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Low Turn-on Voltage
- $V_{RRM}$  100V
- $I_{FAV}$  150mA
- Part no. with suffix "Q" means AEC-Q101 qualified



**SOD123**

### Mechanical Data

- **Case:** SOD123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Maximum Repetitive peak reverse voltage	$V_{RRM}$	V		100
Average Forward Current	$I_{FAV}$	mA		150
Peak Forward Surge Current	$I_{FSM}$	A	8.3ms, half sine	5
Power Dissipation	$P_{tot}$	mW		200
Thermal Resistance Junction to Ambient	$R_{thJA}$	K/W		500
Junction Temperature	$T_J$	$^\circ\text{C}$		-55 to +125
Storage Temperature Range	$T_{stg}$	$^\circ\text{C}$		-55 to +150



# BAT46WQ

## ■ 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		0.25
			I <sub>F</sub> =10mA		0.45
			I <sub>F</sub> =250mA		1
Reverse Leakage Current	I <sub>R</sub>	uA	V <sub>R</sub> =1.5V		0.3
			V <sub>R</sub> =10V		0.5
			V <sub>R</sub> =50V		1
			V <sub>R</sub> =75V		2
Reverse Breakdown Voltage	V <sub>BR</sub>	V	I <sub>R</sub> =100uA	100	
Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =0V, f =1MHz		20
			V <sub>R</sub> =1V, f =1MHz		12
Reverse Recovery Time	t <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =1mA, R <sub>L</sub> =100Ω		3

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAT46WQ	F2	Approximate 0.010	3000	30000	120000	7" reel



# BAT46WQ

## ■ Characteristics (Typical)

Fig.1:  $P_D-T_A$

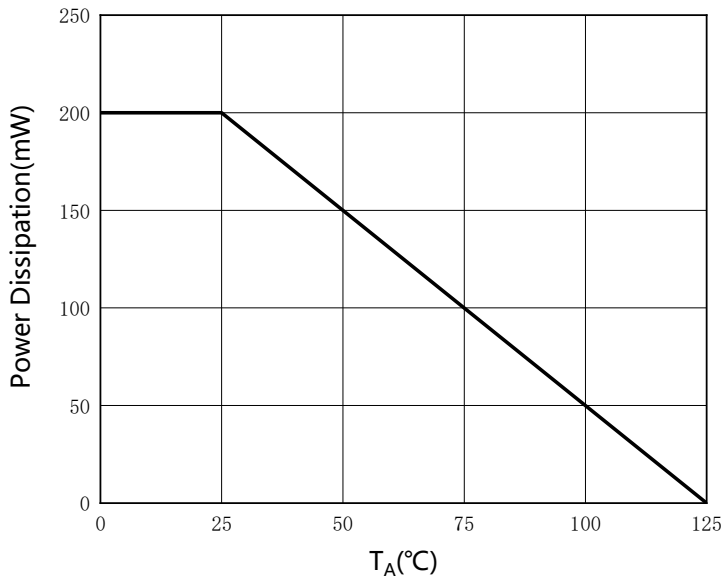


Fig.2: Capacitance Characteristics

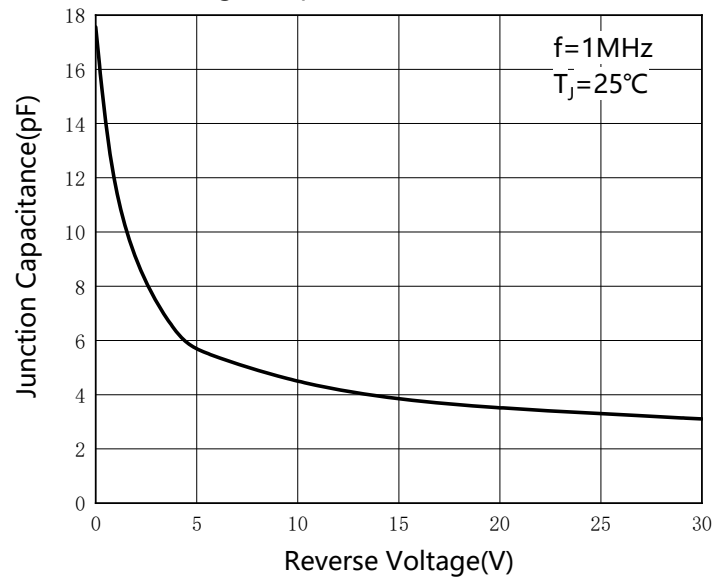


Fig.3: Forward Characteristics

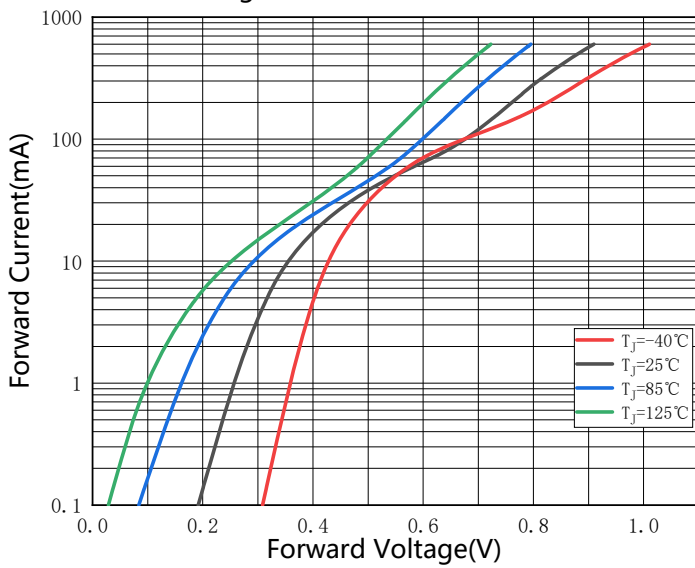
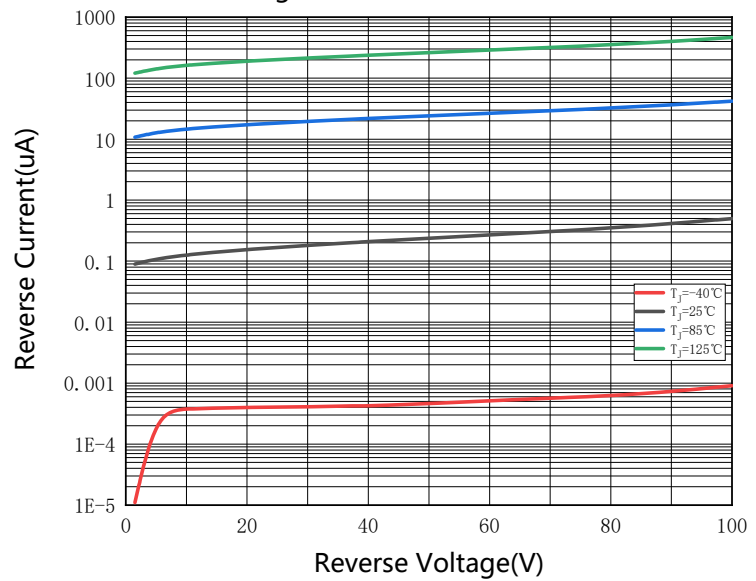


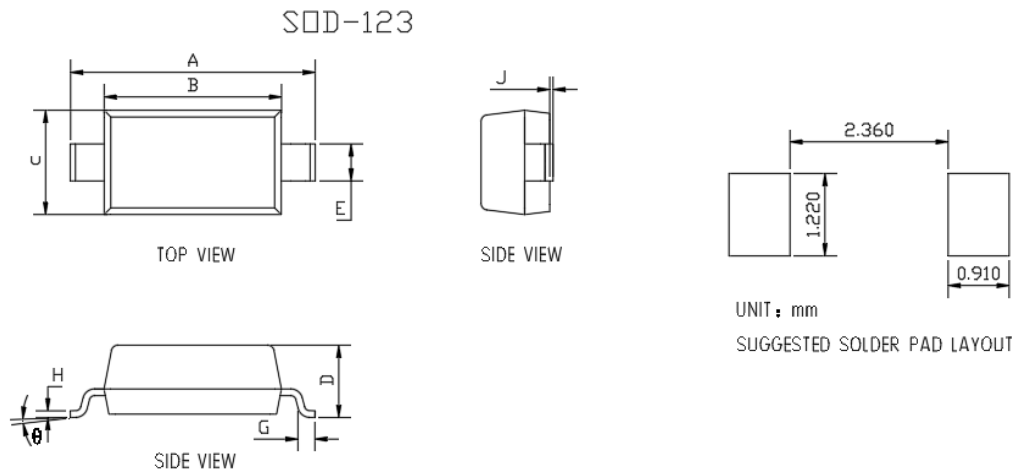
Fig.4: Reverse Characteristics





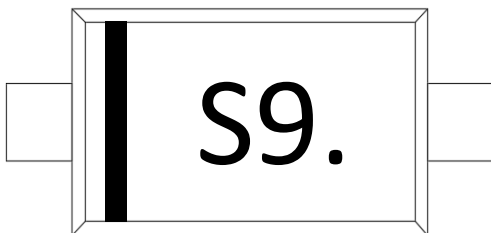
# BAT46WQ

## ■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
$\theta$	0	8°	0	8°

## ■ Marking Information



**Note:**

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



## BAT46WQ

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### Disclaimer

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