

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Low Forward Voltage Schottky Rectifier
- High Current Capability
- Extremely Low Thermal Resistance

SOD-123

## MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Lead: Lead Solderable per MIL-STD-202, Method 208 Guaranteed
- Polarity: See Diagrams Below
- Mounting position: Any

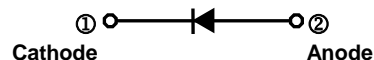


## MARKING

Part Number	BAT42W-C	BAT43W-C
Marking	S7	S8

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch



## ORDER INFORMATION

Part Number	Type
BAT42W-C	Lead (Pb)-free and Halogen-free
BAT43W-C	Lead (Pb)-free and Halogen-free

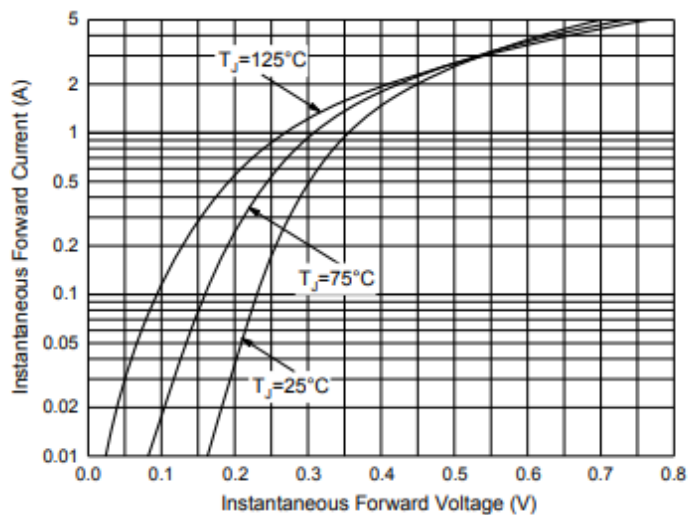
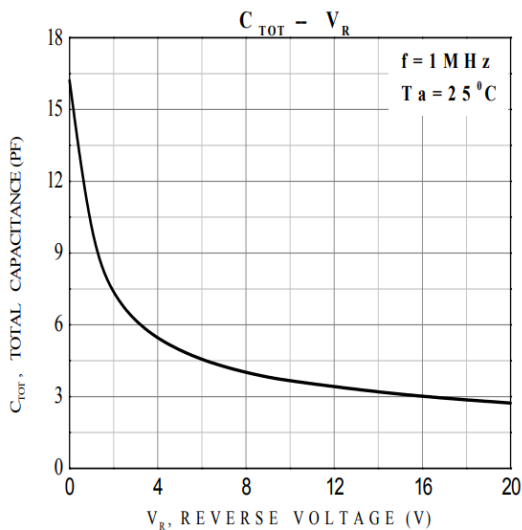
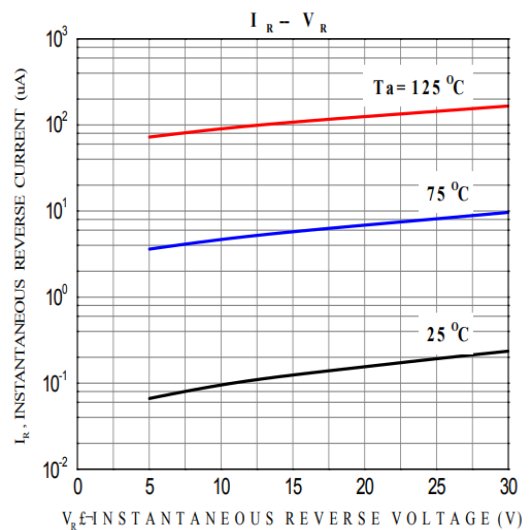
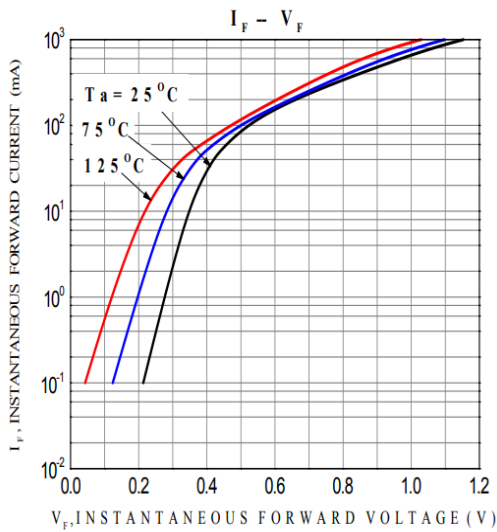
## MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	30	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	30	
DC Blocking Voltage	V <sub>DC</sub>	30	
RMS Reverse Voltage	V <sub>RMS</sub>	21	V
Forward Continuous Current	I <sub>FM</sub>	0.2	A
Repetitive Peak Forward Current @t<1s	I <sub>FRM</sub>	0.5	
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I <sub>FSM</sub>	4	
Power Dissipation	P <sub>D</sub>	500	mW
Thermal Resistance Junction-Ambient	R <sub>θJA</sub>	500	mW/°C
Junction, Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	125, -65~125	°C

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

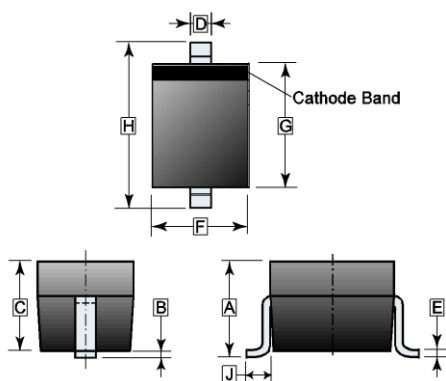
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Voltage	$V_{BR}$	30	-	-	V	$I_R=100\mu\text{A}$
Forward Voltage	Both Types	-	-	1	V	$I_F=200\text{mA}$
	BAT42W-C	-	-	0.4		$I_F=10\text{mA}$
		-	-	0.65		$I_F=50\text{mA}$
	BAT43W-C	0.26	-	0.33		$I_F=2\text{mA}$
-		-	0.45	$I_F=15\text{mA}$		
Reverse Current	$I_R$	-	-	500	nA	$V_R=25\text{V}$
Capacitance Between Terminals	$C_T$	-	10	-	pF	$V_R=1\text{V}$ , $f=1\text{MHz}$
Reverse Recovery Time	$T_{rr}$	-	5	-	nS	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1 \times I_R$ , $R_L=100\Omega$

**RATINGS AND CHARACTERISTIC CURVES**



**PACKAGE OUTLINE DIMENSIONS**

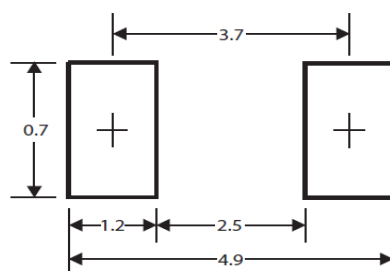
SOD-123



REF.	Millimeter	
	Min.	Max.
A	1.15 REF.	
B	0.10 REF.	
C	1.00	1.30
D	0.30	0.78
E	0.05	0.25
F	1.45	1.80
G	2.55	2.90
H	3.10	3.85
J	0.50 REF.	

**MOUNTING PAD LAYOUT**

SOD-123



\*Dimensions in millimeters