

# BAT42W THRU BAT43W

**200mW  
Schottky Diodes  
30 Volts**

## Features

- Halogen free available upon request by adding suffix "-HF"
- For General Purpose applications
- These diodes are also available in the DO-35 case with the type designations BAT42 to BAT43 and in the MiniMELF case with the type designations LL42 to LL43.
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

## Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking code: BAT42W=S7 ,L2  
BAT43W=S8 ,L3

## Maximum Ratings

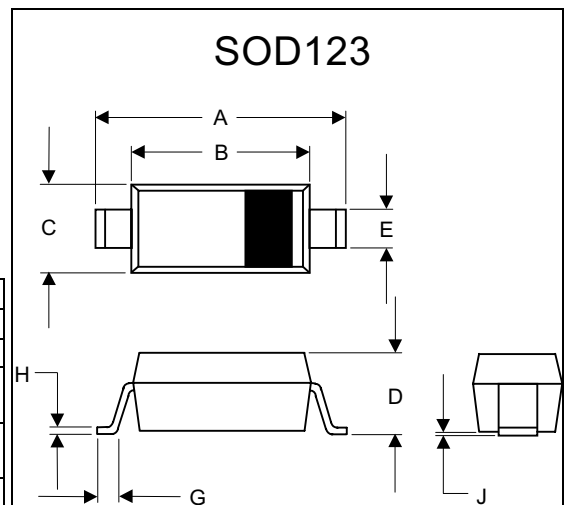
Symbol	Rating	Rating	Unit
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	30	V
I <sub>F</sub>	Forward DC Current at Tamb=25°C	200	mA
I <sub>FRM</sub>	Repetitive Peak Forward Current at tp<1s, Tamb=25°C <sup>(1)</sup>	500	mA
I <sub>FSM</sub>	Surge Forward Current at tp<10ms, Tj=25°C <sup>(1)</sup>	4.0	A
P <sub>tot</sub>	Power Dissipation at Tamb=65°C <sup>(1)</sup>	200	mW
R <sub>JA</sub>	Thermal Resistance Junction to Ambient Air <sup>(1)</sup>	300	°C/W
T <sub>J</sub>	Junction Temperature	-55 to +125	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
V <sub>(BR)R</sub>	Reverse Breakdown Voltage (I <sub>R</sub> =100uAdc Pulsed)	30	---	---	V
V <sub>F</sub>	Forward Voltage <sup>(2)</sup> I <sub>F</sub> =200mAdc	---	---	1.0	V
	I <sub>F</sub> =10mAdc	BAT42W	---	0.4	
	I <sub>F</sub> =50mAdc	BAT42W	---	0.65	
	I <sub>F</sub> =2.0mAdc	BAT43W	0.26	0.33	
I <sub>F</sub> =15mAdc	BAT43W	---	---	0.45	
I <sub>R</sub>	Leakage Current <sup>(2)</sup> (V <sub>R</sub> =25Vdc) (V <sub>R</sub> =25Vdc, T <sub>J</sub> =100°C)	---	---	0.5 100	uA
C <sub>tot</sub>	Capacitance (V <sub>R</sub> =1.0, f=1.0MHz)	---	7.0	---	pF
t <sub>rr</sub>	Reverse Recovery Time (I <sub>F</sub> =10mA, I <sub>R</sub> =10mA) (I <sub>rr</sub> =1.0mA, R <sub>f</sub> =100OHM)	---	---	5.0	ns

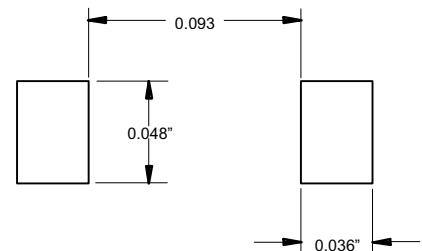
Notes:

1. Valid provided that electrodes are kept at ambient temperature
2. Pulse Test tp<300us, Duty Cycle<2%



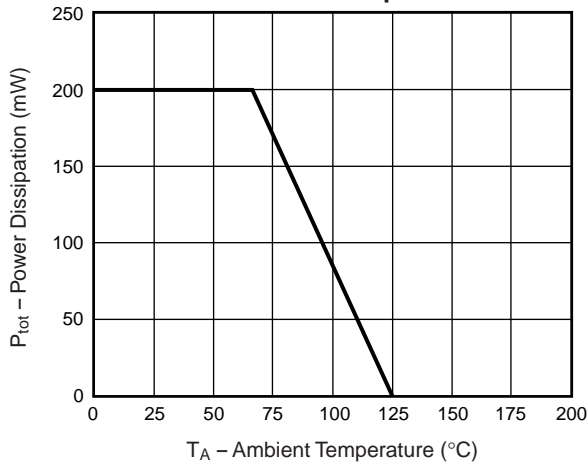
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

### SUGGESTED SOLDER PAD LAYOUT

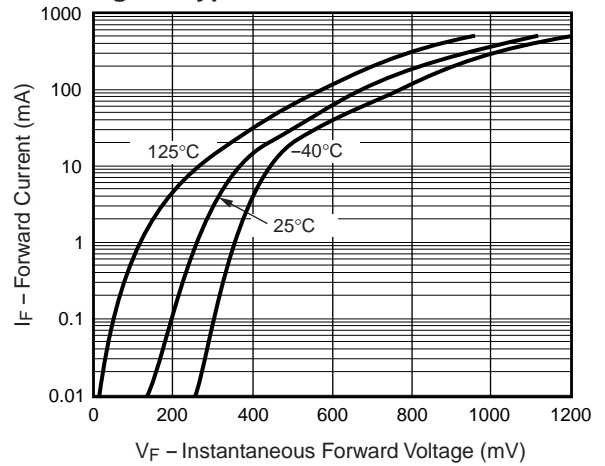


# BAT42W thru BAT43W

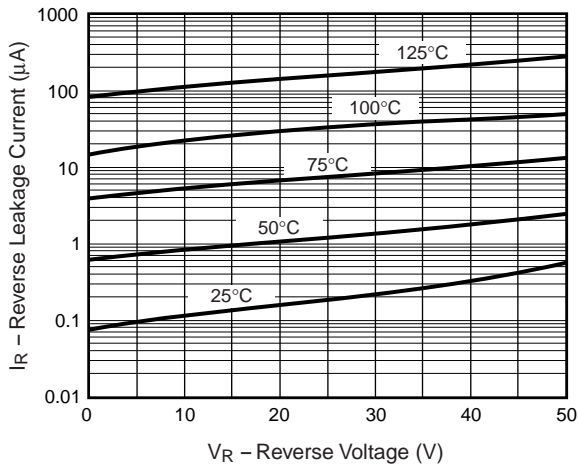
**Fig. 1 – Admissible Power Dissipation vs. Ambient Temperature**



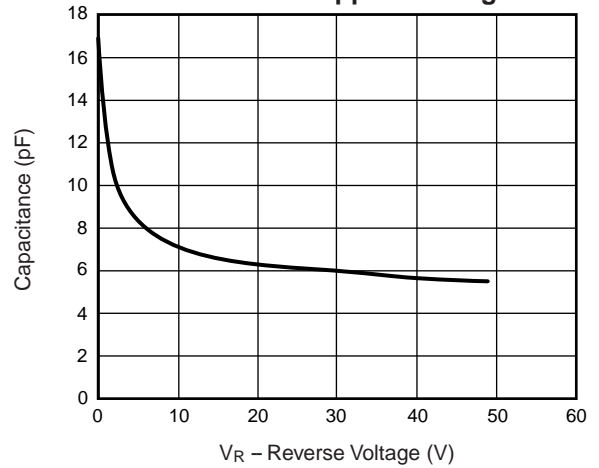
**Fig. 2 – Typical Reverse Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Capacitance vs. Reverse Applied Voltage**





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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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