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[BAT42W-TP](#)

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Micro Commercial Components


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# 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

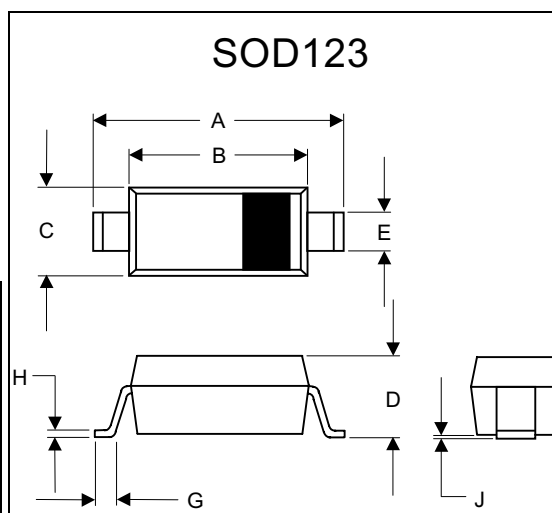
Symbol	Rating	Rating	Unit
$V_{RRM}$	Repetitive Peak Reverse Voltage	30	V
$I_F$	Forward DC Current at $T_{amb}=25^{\circ}C$	200	mA
$I_{FRM}$	Repetitive Peak Forward Current at $t_p < 1s$ , $T_{amb}=25^{\circ}C^{(1)}$	500	mA
$I_{FSM}$	Surge Forward Current at $t_p < 10ms$ , $T_j=25^{\circ}C^{(1)}$	4.0	A
$P_{tot}$	Power Dissipation at $T_{amb}=65^{\circ}C^{(1)}$	200	mW
$R_{JA}$	Thermal Resistance Junction to Ambient $Air^{(1)}$	300	$^{\circ}C/W$
$T_j$	Junction Temperature	-55 to +125	$^{\circ}C$
$T_{STG}$	Storage Temperature	-55 to +150	$^{\circ}C$

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)R}$	Reverse Breakdown Voltage ( $I_R=100\mu A$ dc Pulsed)	30	---	---	V
$V_F$	Forward Voltage <sup>(2)</sup> $I_F=200mA$ dc	---	---	1.0	V
	$I_F=10mA$ dc	BAT42W	---	0.4	
	$I_F=50mA$ dc	BAT42W	---	0.65	
	$I_F=2.0mA$ dc	BAT43W	0.26	0.33	
	$I_F=15mA$ dc	BAT43W	---	0.45	
$I_R$	Leakage Current <sup>(2)</sup> ( $V_R=25V$ dc) ( $V_R=25V$ dc, $T_j=100^{\circ}C$ )	---	---	0.5 100	$\mu A$
$C_{tot}$	Capacitance ( $V_R=1.0$ , $f=1.0MHz$ )	---	7.0	---	pF
$t_{rr}$	Reverse Recovery Time ( $I_F=10mA$ , $I_R=10mA$ ) ( $I_{rr}=1.0mA$ , $R_s=100\Omega$ )	---	---	5.0	ns

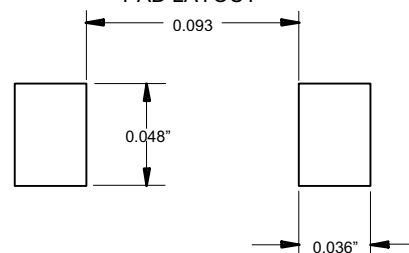
Notes:

1. Valid provided that electrodes are kept at ambient temperature
2. Pulse Test  $t_p < 300\mu s$ , 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	

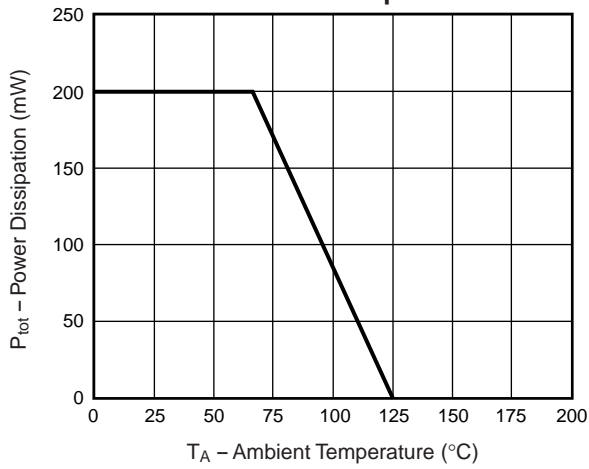
#### SUGGESTED SOLDER PAD LAYOUT



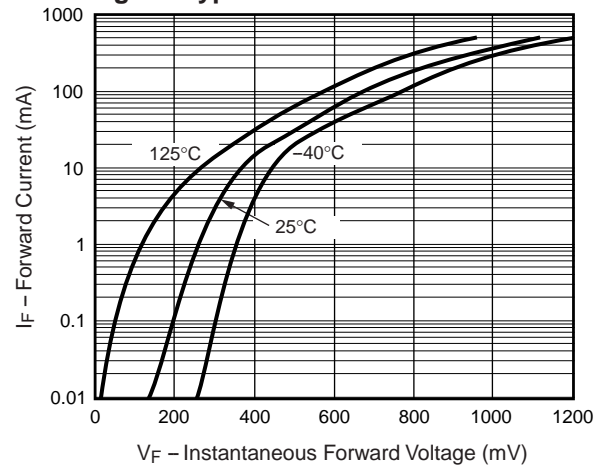
# BAT42W thru BAT43W



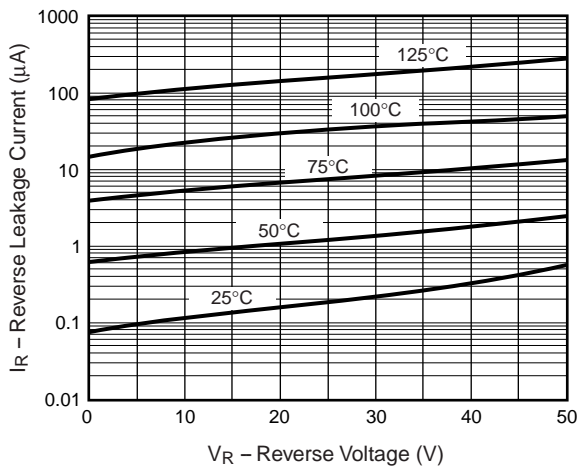
**Fig. 1 – Admissible Power Dissipation vs. Ambient Temperature**



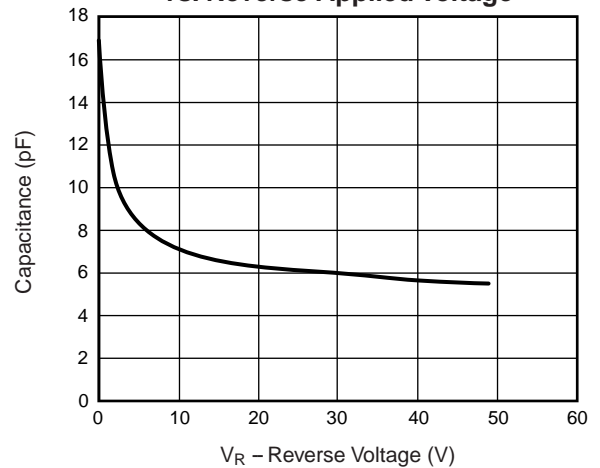
**Fig. 2 – Typical Reverse Characteristics**



**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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