



BAT42W / BAT43W

Surface Mount Schottky Barrier Diode



Voltage Range
30 Volts
200m Watts Power Dissipation

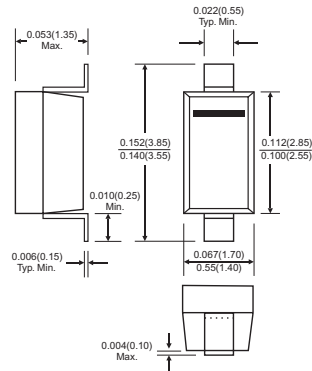
Features

- ✧ Low forward voltage drop
- ✧ Fast switching time
- ✧ Surface mount package ideally suited for automatic insertion

Mechanical Data

- ✧ Case: SOD-123, Plastic
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Polarity: Cathode Band
- ✧ Marking: BAT42W S7
BAT43W S8
- ✧ Weight: 0.01 grams (approx.)

SOD-123



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	BAT42W / BAT43W	Units
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	21	V
Forward Continuous Current (Note 1)	I _{FM}	200	mA
Repetitive Peak Forward Current (Note 1) @ t < 1.0s	I _{FM}	500	mA
Non-Repetitive Peak Forward Surge Current @ t < 10mS	I _{FSM}	4.0	A
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	625	K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 125	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Forward Voltage Drop All Types IF=200mA BAT42W IF=10mA BAT42W IF= 50mA BAT43W IF =2.0mA BAT43W IF=15mA	V _F	— — — 0.26 —	1.0 0.40 0.65 0.33 0.45	V
Maximum Peak Reverse Current VR=25V VR=25V, T _J =100°C	I _R	—	500 100	nA uA
Junction Capacitance VR=0, f=1.0MHz	C _j	—	10	pF
Reverse Recovery Time (Note 2)	t _{rr}	—	5.0	nS

- Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.
 2. Reverse Recovery Test Conditions: I_F=I_R=10mA, I_{rr}=0.1 x I_R, R_L=100Ω.
 3. t < 300uS, Duty Cycle < 2%.