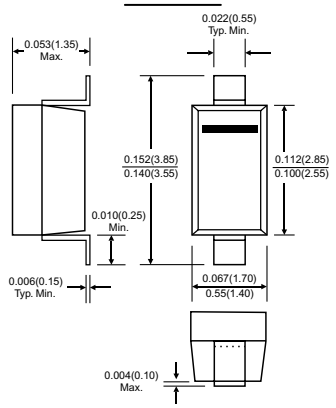
BAT42W / BAT43W

Surface Mount Schottky Barrier Diode

Voltage Range
30 Volts
200m Watts Power Dissipation

SOD-123



Dimensions in inches and (millimeters)

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 MIIL-STD-202, Method 208
- ✧ Polarity: Cathode Band
- ✧ Marking: BAT42W S7
  BAT43W S8
- ✧ Weight: 0.01 grams (approx.)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	BAT42W/BAT43W	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	V
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)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 125	^{O}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, Tj=100℃	I_R	-	500 100	nA uA
Junction Capacitance VR=0, f=1.0MHz	Cj	-	10	pF
Reverse Recovery Time (Note 2)	trr	-	5.0	nS

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