



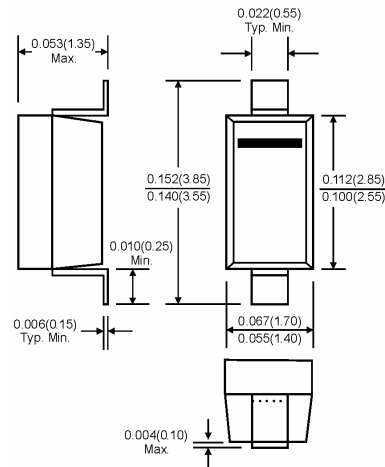
**BAT42W - BAT43W**  
200mW Surface Mount Schottky Barrier Diode  
**SOD-123**

**Features**

- ✧ Low Forward Voltage Drop
- ✧ Surface mount package ideally suited for automatic insertion
- ✧ Moisture sensitivity level 1
- ✧ High temperature soldering guaranteed: 260°C/10 seconds
- ✧ Green compound (Halogen free)with suffix "G" on packing code and prefix "G" on date code.

**Mechanical Data**

- ✧ Case : SOD-123 plastic package
- ✧ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity : Cathode Band
- ✧ Marking : BAT42W - S7  
BAT43W - S8
- ✧ Weight : 0.01gram (Approx.)



**Dimensions in inches and (millimeters)**



Cathode Anode

**Electrical Symbol**

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	BAT42W	BAT43W	Units
Repetitive Peak Reverse Voltage	$V_{RRM}$	30		V
Working Peak Reverse Voltage	$V_{RWM}$	21		V
DC Blocking Voltage	$V_R$	21		V
RMS Reverse Voltage	$V_{R(RMS)}$	21		V
Forward Continue Current (Note 1)	$I_{FM}$	200		mA
Peperitive Peak Forward Current @ $t < 1.0S$	$I_{FM}$	500		mA
Non-Repetitive Peak Forward Surge Current @ $t < 1.0mS$	$I_{FSM}$	4.0		A
Repetitive Peak Forward Surge Current	$I_{FRM}$	625		mA
Power Dissipation (Note 1)	$P_d$	200		mW
Maximum Maximum Forward Voltage IF = 200mA IF = 2.0mA IF = 10mA IF = 15mA IF = 50mA	VF	1.0		V
		--	0.33	V
		0.40	--	
		--	0.45	
		0.65	--	
Peak Reverse Current @ $V_R=25V$ & $T_j=25^\circ C$ @ $V_R=25V$ & $T_j=100^\circ C$	IR	500 100		nA uA
Junction Capacitance $V_R=0, f=1.0MHz$	$C_j$	10		pF
Reverse Recovery Time (Note 2)	$T_{rr}$	5		nS
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625		nS
Operating Temperature Range	$T_J$	-65 to +125		°C
Storage Temperature Range	$T_{STG}$	-65 to +125		°C

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Reverse Recovery Test Conditions:  $I_F=10mA, I_R=10mA, R_L=100\Omega, I_{RR}=1mA$

### Ratings and Characteristics Curve (BAT42W - BAT43W)

FIG 1 Typical Forward Characteristics

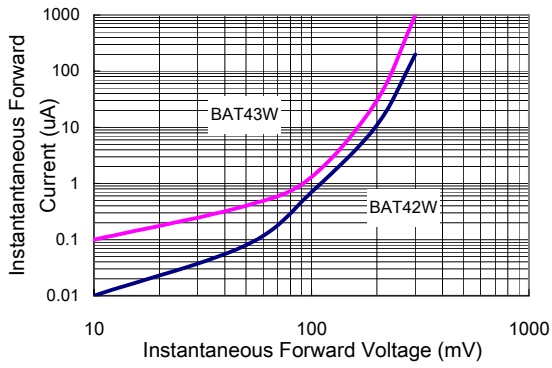


FIG 2 Typical Forward characteristics

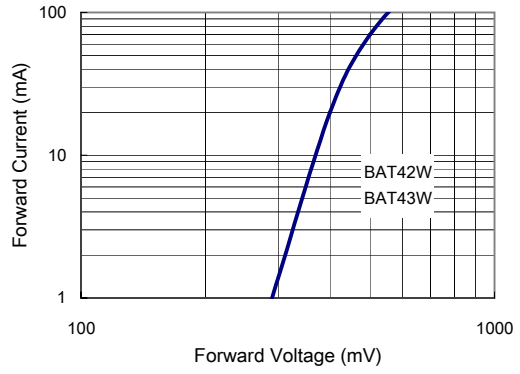


FIG 3 Typical Reverse Characteristics

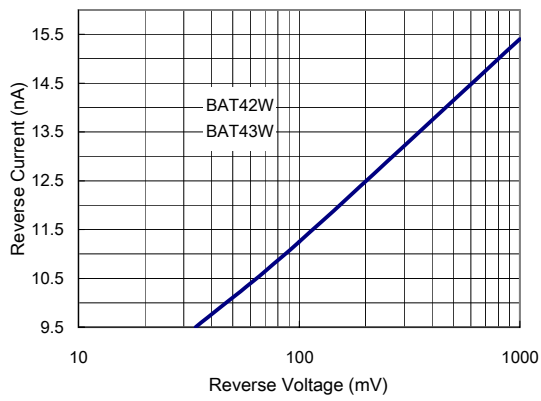


FIG 4 Typical Reverse Characteristics

