



BAT42W - BAT43W

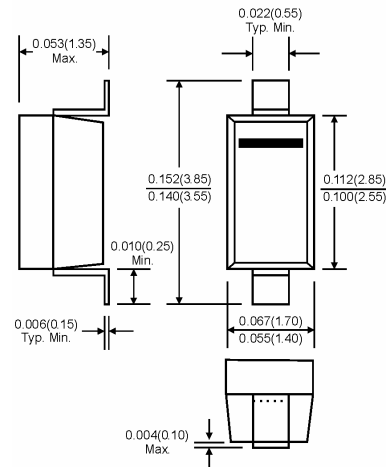
200mW Surface Mount Schottky Barrier Diode
SOD-123

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 DC Blocking Voltage	V_{RWM} V_R			V
RMS Reverse Voltage	$V_{R(RMS)}$	21		V
Forward Continue Current (Note 1)	I_{FM}	200		mA
Pepetitive 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	IFRM	625		mA
Power Dissipation (Note 1)	Pd	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 @ VR=25V & Tj=25°C @ VR=25V & Tj=100 °C	IR	500 100		nA uA
Junction Capacitance VR=0, f=1.0MHz	Cj	10		pF
Reverse Recovery Time (Note 2)	Trr	5		nS
Thermal Resistance Junction to Ambient Air (Note 1)	RθJA	625		nS
Operating Temperature Range	TJ	-65 to +125		°C
Storage Temperature Range	TSTG	-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

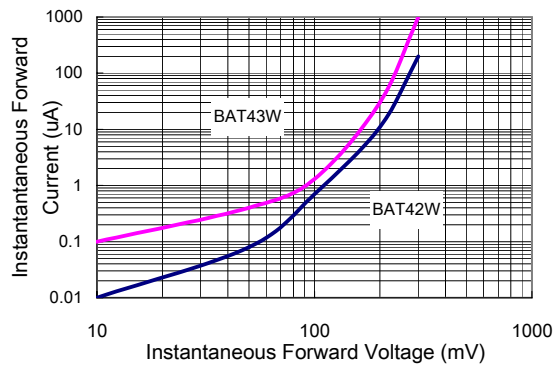


FIG 2 Typical Forward characteristics

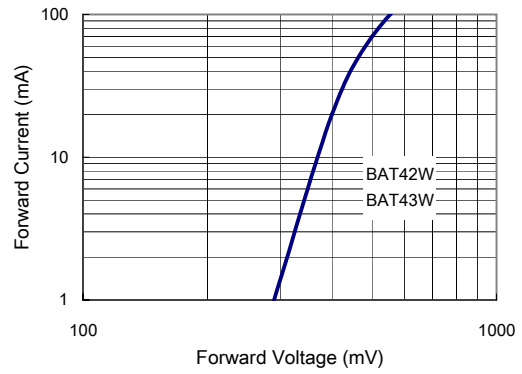


FIG 3 Typical Reverse Characteristics

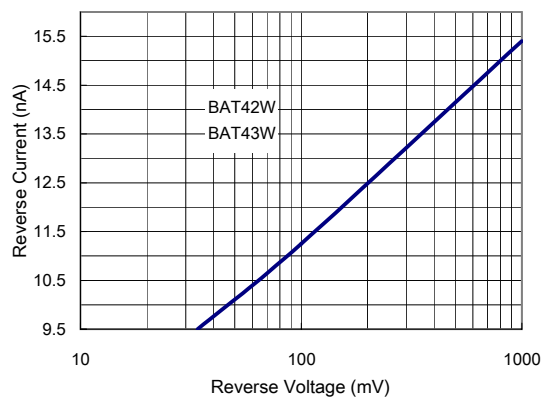


FIG 4 Typical Reverse Characteristics

