



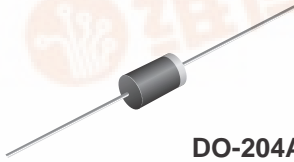
New Product

# SB2H90 and SB2H100

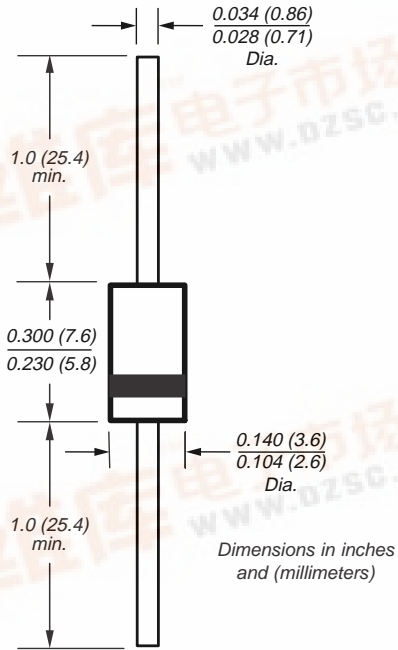
Vishay Semiconductors  
formerly General Semiconductor

## High Voltage Schottky Rectifiers

Reverse Voltage 90 to 100V  
Forward Current 2.0A



DO-204AC (DO-15)



### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection

### Mechanical Data

**Case:** JEDEC DO-204AC molded plastic over a passivated junction

**Terminals:** Solder Plated axial leads, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:  
250°C/10 seconds 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.015 oz., 0.4 g

### Maximum Ratings and Thermal Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Symbol	SB2H90	SB2H100	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	90	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	90	100	V
Maximum DC blocking voltage	V <sub>DC</sub>	90	100	V
Maximum average forward rectified current at T <sub>A</sub> = 25°C	I <sub>F(AV)</sub>	2.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	75		A
Peak repetitive reverse surge current at t <sub>p</sub> = 2.0µs, 1KHz	I <sub>RRM</sub>	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/µs
Typical thermal resistance <sup>(2)</sup>	R <sub>θJA</sub>	45		°C/W
	R <sub>θJL</sub>	14		
Storage temperature range	T <sub>STG</sub>	-55 to +175		°C
Maximum operating junction temperature	T <sub>J</sub>	+175		°C

### Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Max. instantaneous forward voltage <sup>(1)</sup>	I <sub>F</sub> = 2A, T <sub>J</sub> = 25°C I <sub>F</sub> = 2A, T <sub>J</sub> = 125°C	V <sub>F</sub>	0.79 0.65	V
Maximum DC reverse current at rated DC blocking voltage	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C	I <sub>R</sub>	10 4	µA mA

Notes: (1) Pulse test: 300µs pulse width, 1% duty cycle  
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas



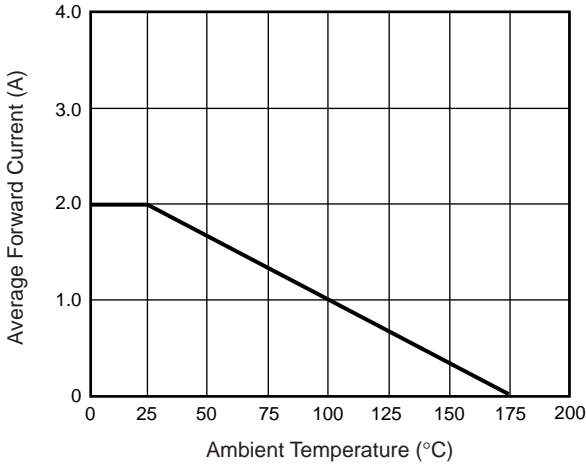
# SB2H90 and SB2H100



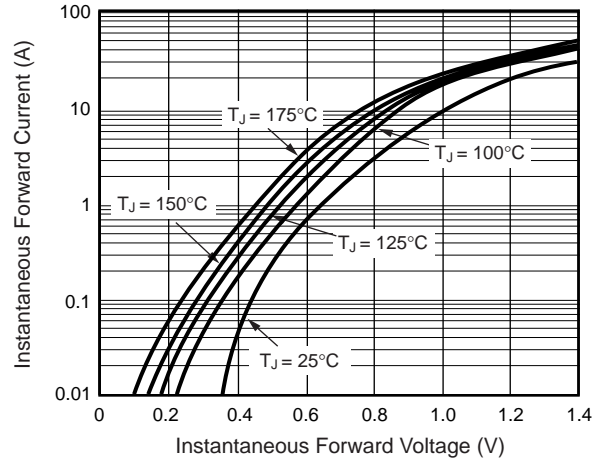
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## Ratings and Characteristic Curves (T<sub>A</sub> = 25°C unless otherwise noted)

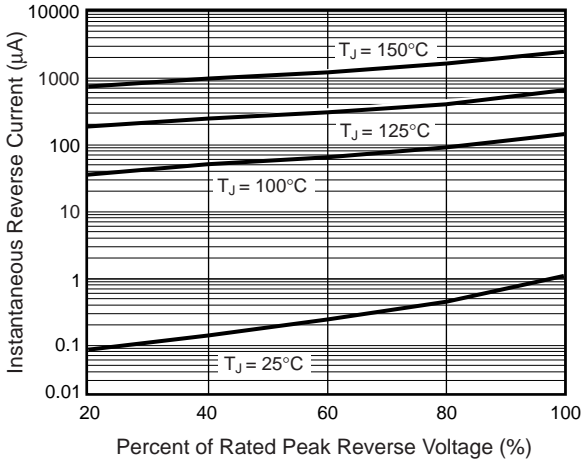
**Fig. 1 – Forward Current Derating Curve**



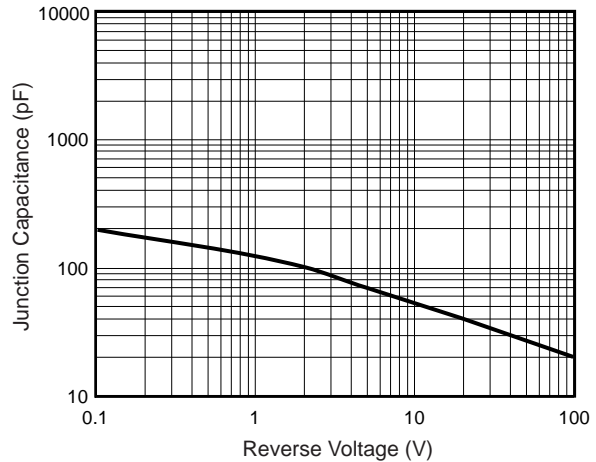
**Fig. 2 – Typical Instantaneous Forward Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Junction Capacitance**



**Fig. 5 - Typical Transient Thermal Impedance**

