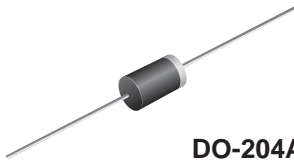
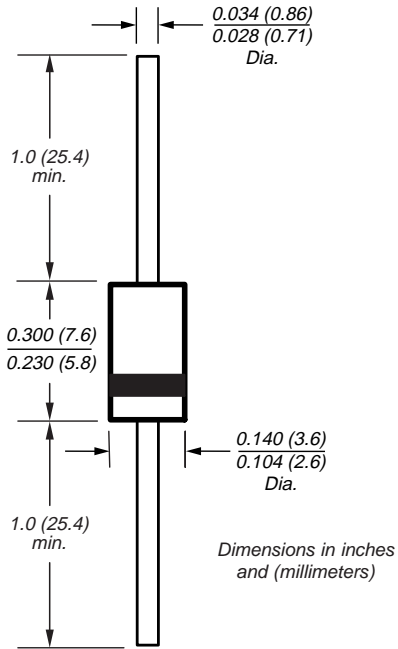


**High Voltage Schottky Rectifiers**

**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>R</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><br>R <sub>θJL</sub> | 45<br>14    |         | °C/W |
| Storage temperature range  | T <sub>STG</sub>                     | -55 to +175 |         | °C   |
| Maximum operating junction temperature   | T <sub>J</sub>                       | +175        |         | °C   |

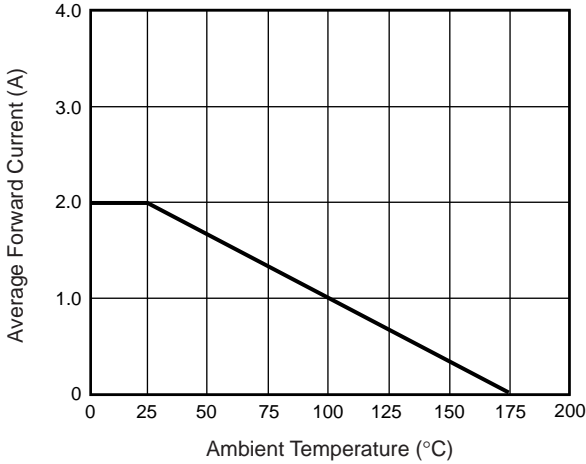
**Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

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

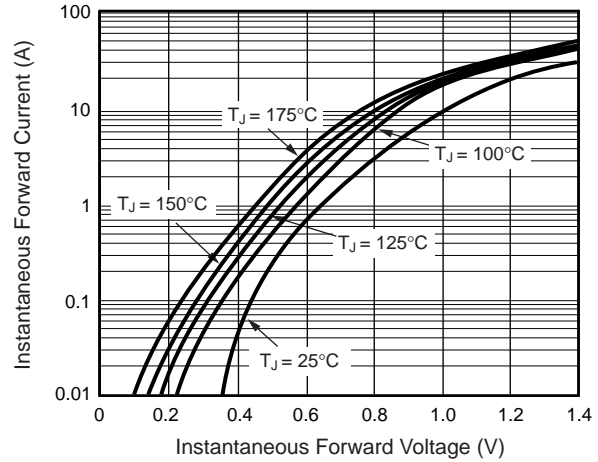
**Notes:** (1) Pulse test: 300µs pulse width, 1% duty cycle  
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

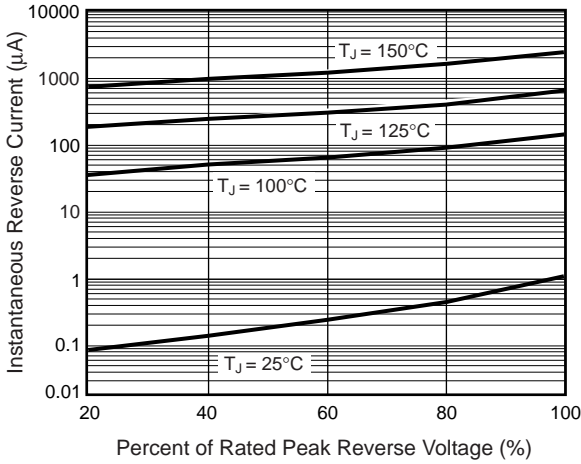
**Fig. 1 – Forward Current Derating Curve**



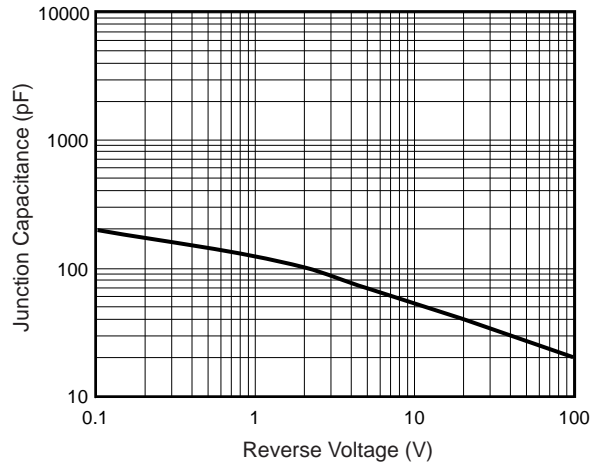
**Fig. 2 – Typical Instantaneous Forward Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Junction Capacitance**



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

