

# SB5200

## Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 200 V

Forward Current - 5 A

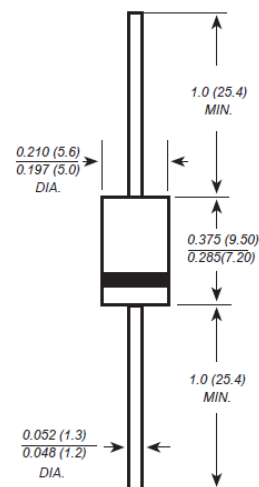
### Features

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

### Mechanical Data

- **Case:** Molded plastic body, JEDEC DO-201AD.
- **Terminals:** Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

### DO-201AD



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	Value	Unit
	Marking	SB5200	-
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Maximum RMS Voltage	$V_{RMS}$	140	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current 8.3 ms Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	120	A
Maximum Instantaneous Forward Voltage at 5 A	$V_F$	0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$I_R$	0.1 1	mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	120	pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	10	°C/W
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JC}$	2	°C/W
Operating Junction Temperature Range	$T_j$	- 55 to + 150	°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150	°C

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Thermal Resistance from Junction to lead vertical P.C.B, mounted with 0.375"(9.5mm) lead length

