





Certificate Number: Q10561

Certificate Number: E17276

**UPDATE: MAY 10, 1999** 

## **SB220S - SB2B0S**

PRV: 20 - 100 Volts lo: 2.0 Amperes

### **FEATURES:**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low power loss
- \* Low cost
- \* Low forward voltage drop

### **MECHANICAL DATA:**

\* Case: DO-41 Molded plastic

\* Epoxy: UL94V-O rate flame retardant

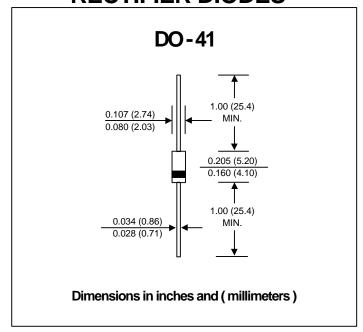
\* Lead: Axial lead solderable per MIL-STD-202,

Method 208 guaranteed

\* Polarity: Color band denotes cathode end

\* Mounting position : Any\* Weight : 0.339 gram

# SCHOTTKY BARRIER RECTIFIER DIODES



### 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%.

RATING	SYMBOL	SB 220S	SB 230S	SB 240S	SB 250S	SB 260S	SB 270S	SB 280S	SB 290S	SB 2B0S	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	70	80	90	100	Volts
Maximum RMS Voltage	VRMS	14	21	28	35	42	49	56	63	70	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	70	80	90	100	Volts
Maximum Average Forward Current									•	•	
0.375", 9.5mm Lead Length See Fig.1	<b>I</b> F(AV)	2.0								Amps.	
Peak Forward Surge Current,											
8.3ms single half sine wave superimposed											
on rated load (JEDEC Method)	<b>I</b> FSM	60								Amps.	
Maximum Forward Voltage at I <sub>F</sub> = 2.0 Amps. (Note 1)	VF	0.5 0.74 0.79					Volt.				
Maximum Reverse Current at											
Rated DC Blocking Voltage (Note 1)	lR	0.5								mA	
Junction Temperature Range	TJ	- 65 to + 125 - 65 to + 150								°C	
Storage Temperature Range	Тѕтс	- 65 to + 150									°C

#### Notes:







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FIG.1 - FORWARD CURRENT DERATING CURVE AVERAGE FORWARD CURRENT 2.5 SB250S 2.0 THRU SB2B0S **AMPERES** 1.5 SB230S SB240S 1.0 0.5 0 0 100

LEAD TEMPERATURE, (°C)

FIG.3 - TYPICAL FORWARD CHARACTERISTICS

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PEAK FORWARD SURGE CURRENT, AMPERES 60 0 L 20 NUMBER OF CYCLES AT 60Hz

20 FORWARD CURRENT, AMPERES SB280S SB220S SB290S SB230S SB2B0S SB240S SB250S SB260S SB270S 1.0 T<sub>J</sub> = 25 ∘C PULSE WIDTH = 300µs DUTY CYCLE = 2% 0.7 0.9 1.1 1.3 1.5 1.7

FORWARD VOLTAGE, VOLTS

0.1

0.3 0.5

