



Certificate Number: Q10561



Certificate Number: E17276

SB120 - SB1B0

PRV : 20 - 100 Volts

I_o : 1.0 Ampere

FEATURES :

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

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

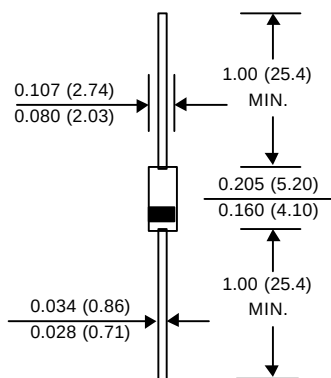
Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

SCHOTTKY BARRIER RECTIFIER DIODES

DO - 41



Dimensions in inches and (millimeters)

RATING	SYMBOL	SB 120	SB 130	SB 140	SB 150	SB 160	SB 170	SB 180	SB 190	SB 1B0	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	Volts
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I _{F(AV)}	1.0									Amp.
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I _{FSM}	40									Amps.
Maximum Forward Voltage at I _F = 1.0 Amp. (Note 2)	V _F	0.5			0.7			0.79			Volt.
Maximum Reverse Current at Ta = 25 °C	I _R	0.5									mA
Rated DC Blocking Voltage (Note 1) Ta = 100 °C	I _{R(H)}	10.0			5.0						mA
Typical Thermal Resistance (Note 2)	R _{θJL}	15									°C/W
Junction Temperature Range	T _J	- 40 to + 125				- 65 to + 150					°C
Storage Temperature Range	T _{STG}	- 65 to + 150									°C

Notes :

(1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.

(2) Thermal Resistance from junction to lead, PC board Mounting with 0.375" (9.5mm) Lead Lengths.

UPDATE : SEPTEMBER 12, 1998

RATING AND CHARACTERISTIC CURVES (SB120 - SB1B0)

FIG.1 - FORWARD CURRENT DERATING CURVE

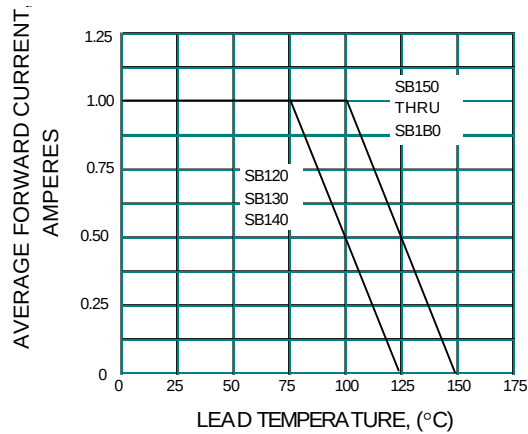


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

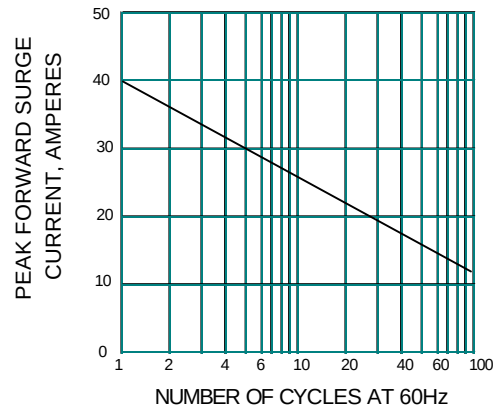


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

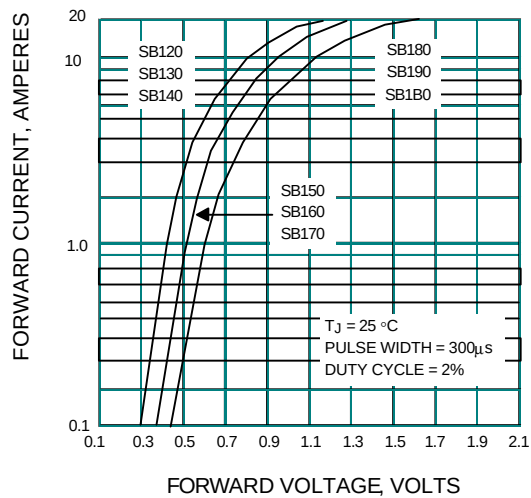


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

