

SB120 - SB1B0

PRV : 20 - 100 Volts

I_o : 1.0 Ampere

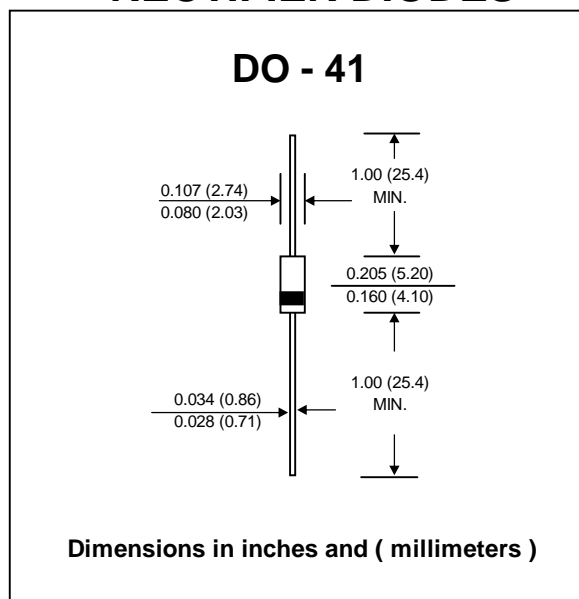
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low forward voltage drop
- * Low cost
- * Pb / RoHS Free

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 : 0.312 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	SB	SB	SB	SB	SB	SB	SB	SB	UNIT	
		120	130	140	150	160	170	180	190	1B0		
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V	
Maximum Average Forward Current 0.375", 9.5mm Lead Length See Fig.1	I _{F(AV)}	1.0									A	
Maximum Peak Forward Surge Current, 8.3ms single half sine wave Superimposed on rated load (JEDEC Method) T _L = 75°C	I _{FSM}	40									A	
Maximum Forward Voltage at I _F = 1.0 A (Note 2)	V _F	0.5			0.7			0.79			V	
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			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.

RATING AND CHARACTERISTIC CURVES (SB120 - SB1B0)

FIG.1 - FORWARD CURRENT DERATING CURVE

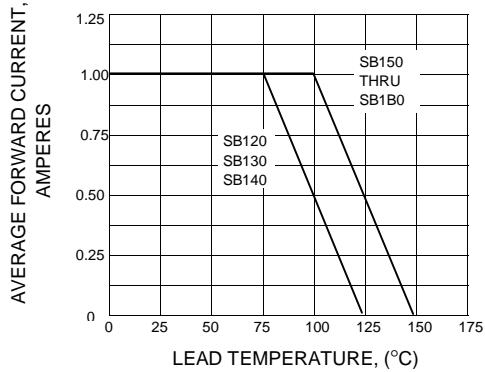


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

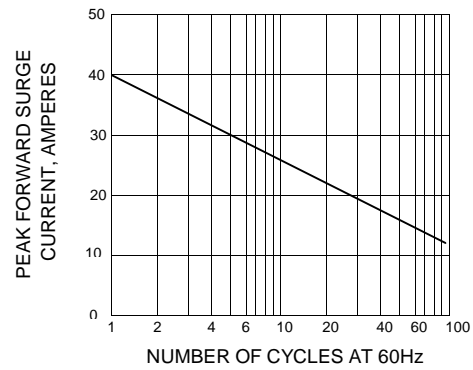


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

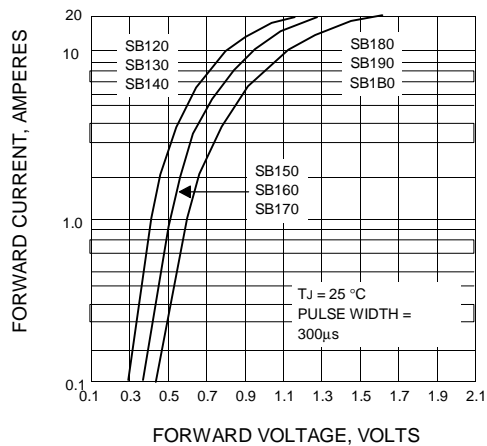


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

