

SBP820 THRU SBP8100

CURRENT 8.0Amperes
VOLTAGE 20 to 100 Volts

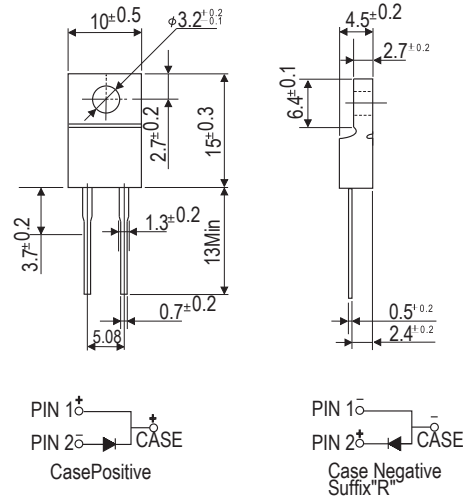
Features

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 250°C /10 seconds, 0.25" (6.35mm) from case

Mechanical Data

- Case : JEDEC ITO-220A molded plastic body
- Terminals : Lead solderable per MIL-STD-750, Method 2026
- Polarity : As marked
- Mounting Position : Any
- Weight : 0.08 ounce, 2.24 grams

ITO-220A



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	SBP 820	SBP 830	SBP 840	SBP 850	SBP 860	SBP 880	SBP 8100	Units
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current (see Fig. 1)	I(AV)	8.0							Amps
Repetitive peak forward current(square wavr, 20KHZ) at Tc=105 °C	I _{FRM}	16.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 8.0A (Note 1)	V _F	0.65		0.75		0.80	0.85		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	T _A =25 °C	1.0							mA
	T _A =125 °C	15		50					
Typical thermal resistance (Note 2)	R _{θJC}	5.0							°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150				°C
Storage temperature range	T _{STG}	-65 to +150							°C

Notes:

- (1) Pulse test: 300µS pulse width, 1% duty cycle
- (2) Thermal resistance from junction to case



RATINGS AND CHARACTERISTIC CURVES SBP820 THRU SBP8100

FIG.1-FORWARD CURRENT DERATING CURVE

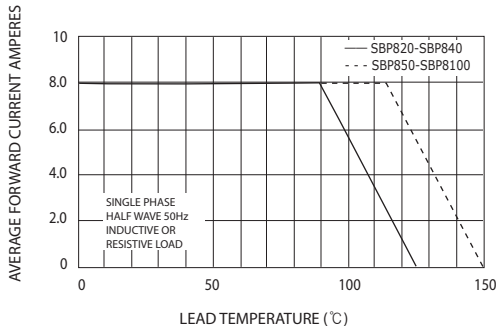


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

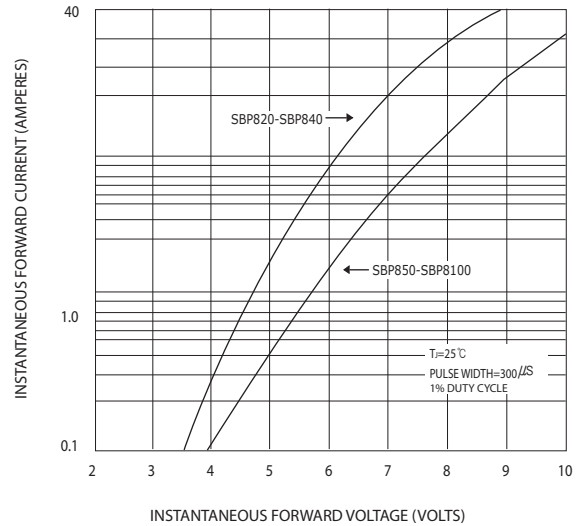


FIG.4-TYPICAL JUNCTION CAPACITANCE

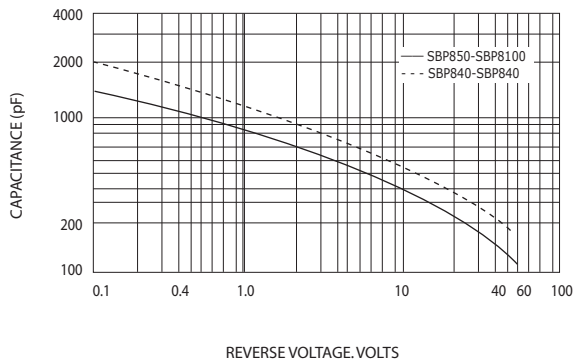


FIG.3-TYPICAL REVERSE CHARACTERISTICS

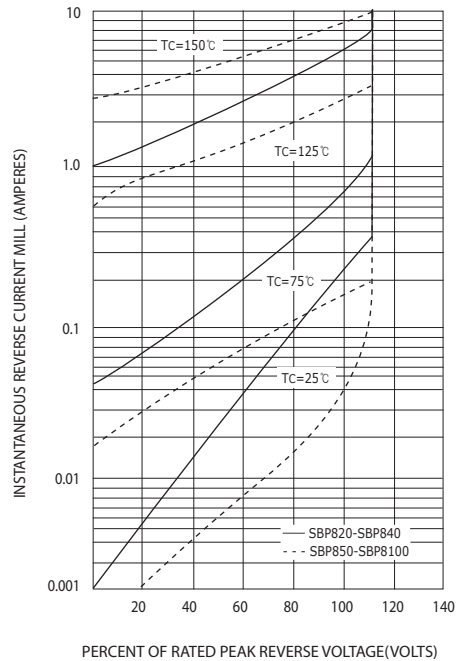


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

