

## SBR1620 THRU SBR16100

CURRENT 16.0Amperes  
VOLTAGE 20 to 100 Volts

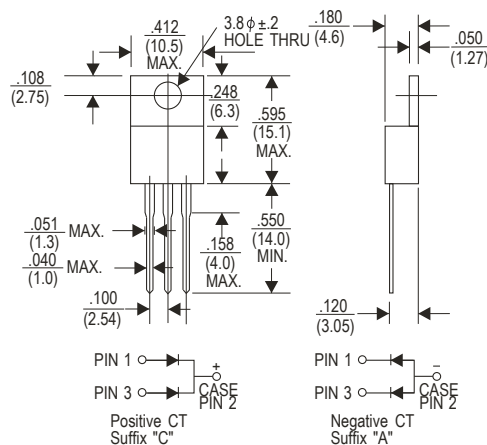
### Features

- 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
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed : 250 /10 seconds, 0.25" (6.35mm) from case

### Mechanical Data

- Case : JEDEC TO-220 molded plastic body
- Terminals : Lead solderable per MIL-STD-750, Method 2026
- Polarity : As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position : Any
- Weight : 0.08 ounce, 2.24 grams

### TO-220



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

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

		Symbols	SBR 1620	SBR 1630	SBR 1640	SBR 1650	SBR 1660	SBR 1680	SBR 16100	Units
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS voltage		V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC blocking voltage		V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum average forward rectified current at T <sub>c</sub> =95		I <sub>(AV)</sub>	16.0							Amps
Repetitive peak forward current(square wavr, 20KHZ) at T <sub>c</sub> =105		I <sub>FRM</sub>	32.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	150.0							Amps
Maximum instantaneous forward voltage at 8.0A (Note 1)		V <sub>F</sub>	0.65			0.75		0.80	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	T <sub>A</sub> =25	I <sub>R</sub>	1.0							mA
	T <sub>A</sub> =125		30			50				
Typical thermal resistance (Note 2)		R <sub>JC</sub>	3.0							/W
Operating junction temperature range		T <sub>J</sub>	-65 to +125			-65 to +150				
Storage temperature range		T <sub>STG</sub>	-65 to +150							

#### Notes:

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

## RATINGS AND CHARACTERISTIC CURVES SBR1620-SBR16100

FIG.1-FORWARD CURRENT DERATING CURVE

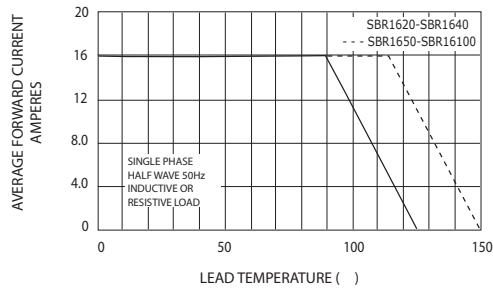


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

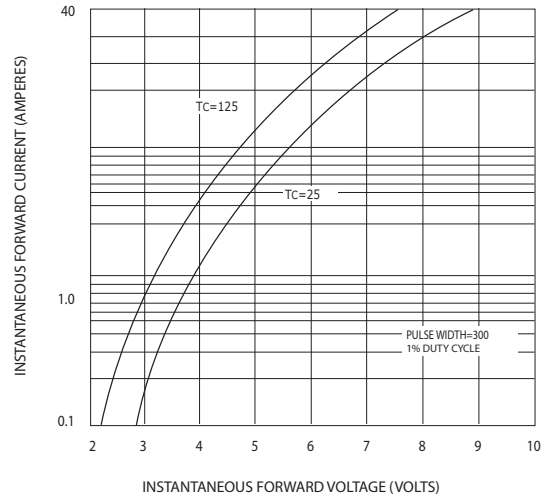


FIG.4-TYPICAL JUNCTION CAPACITANCE

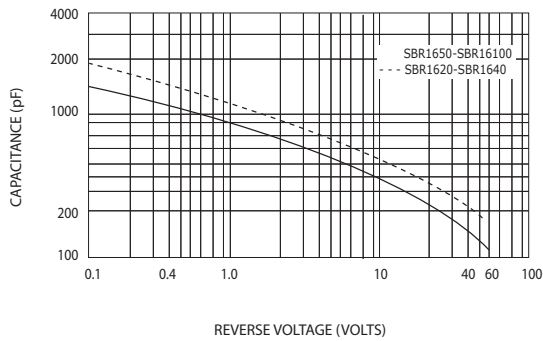


FIG.3-TYPICAL REVERSE CHARACTERISTICS

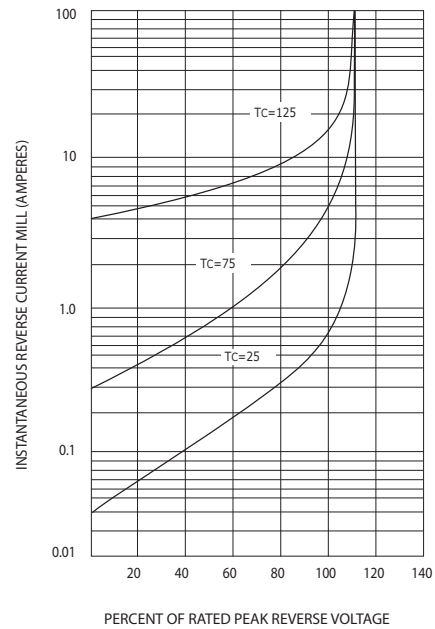


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

