



# DATA SHEET

## SB1620DC~SB16150DC

### D<sup>2</sup>PAK SURFACE SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 150 Volts **CURRENT** 16 Amperes

TO-263 / D<sup>2</sup>PAK

Unit: inch (mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

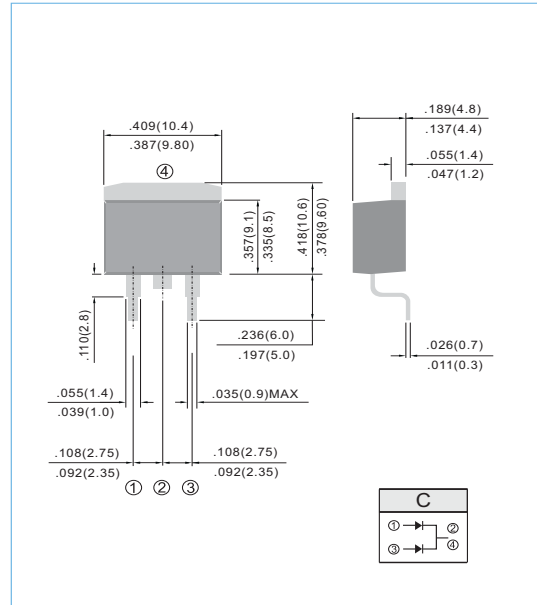
Case: D<sup>2</sup>PAK/TO-263 molded plastic package

Terminals: Lead solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Mounting Position: Any

Weight: 0.06 ounces, 2.24grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

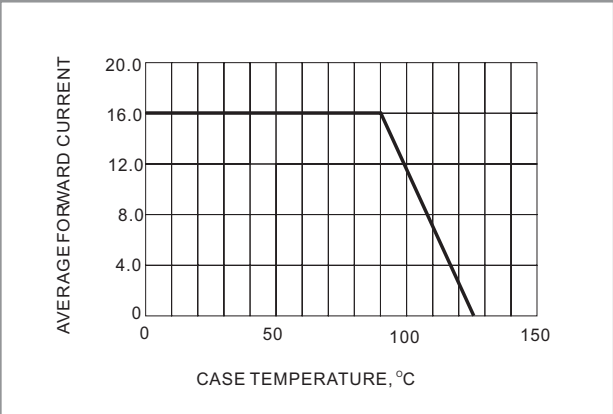
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

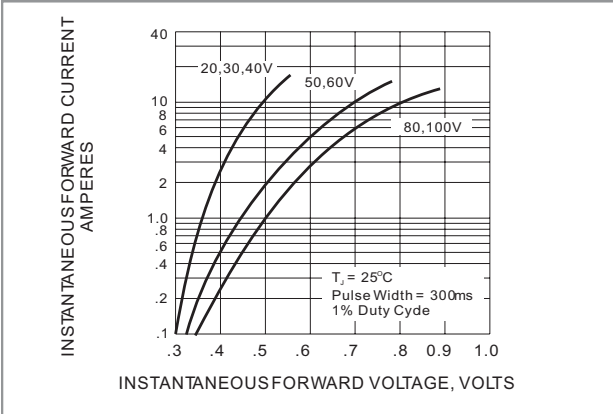
PARAMETER	SYMBOL	SB1620 DC	SB1630 DC	SB1640 DC	SB1650 DC	SB1660 DC	SB1680 DC	SB16100 DC	SB1650 DC	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	V
Maximum Average Forward Current .375" (9.5mm) lead length at T <sub>c</sub> = 90°C	I <sub>AV</sub>	16								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150								A
Maximum Forward Voltage at 8.0A per leg	V <sub>F</sub>	0.55		0.75		0.85		0.92		V
Maximum DC Reverse Current at T <sub>A</sub> =25°C Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>					0.5 100				mA
Typical Thermal Resistance	R <sub>θJC</sub>	2.0								°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50 to +125								°C



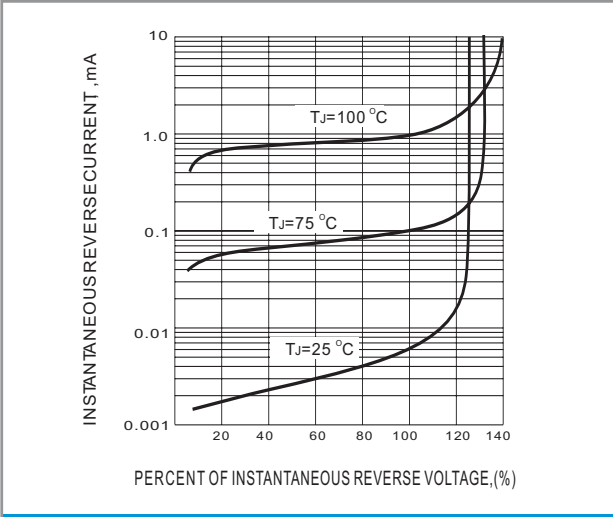
**RATING AND CHARACTERISTIC CURVES**



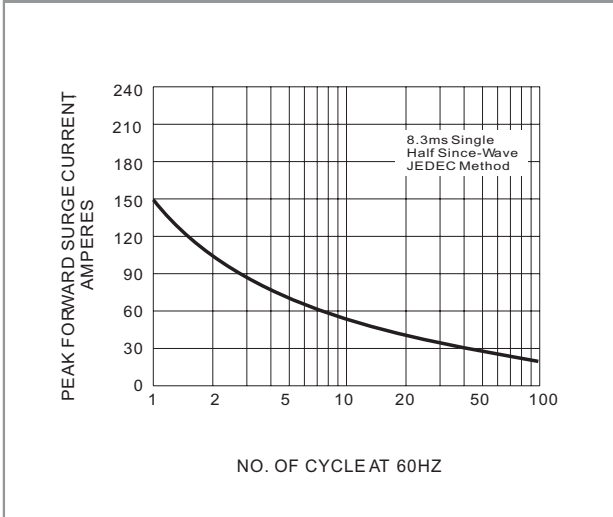
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT**