

# SB1645 - SB16100

**PRV : 45 - 100 Volts**  
**I<sub>o</sub> : 16 Amperes**

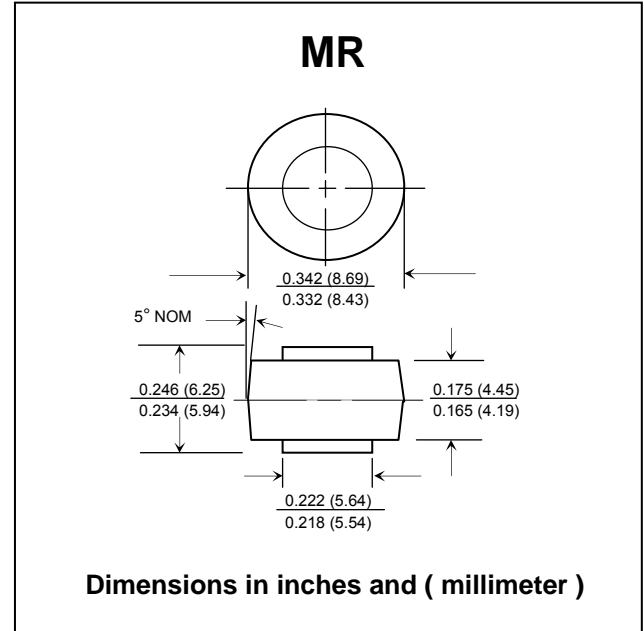
## FEATURES :

- \* High current capability
- \* Low forward voltage drop
- \* High surge capacity
- \* Low power loss, High efficiency
- \* Guard ring for transient protection
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Terminal are readily solderable
- \* Polarity : Cathode polarity band
- \* Mounting position : Any
- \* Weight : 1.624 grams

# 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%.

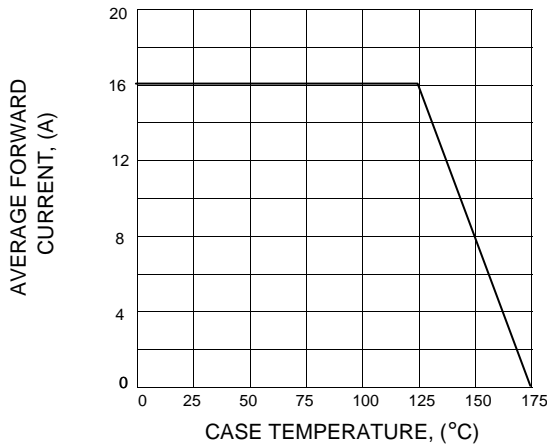
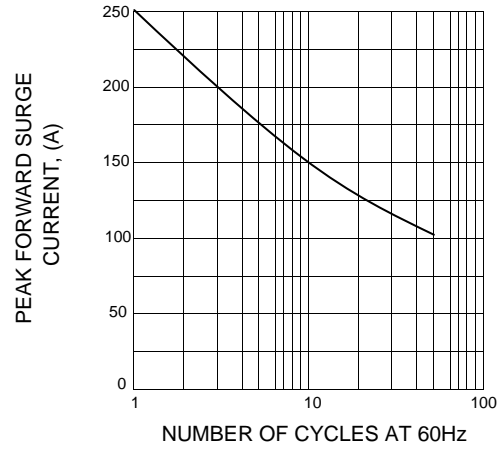
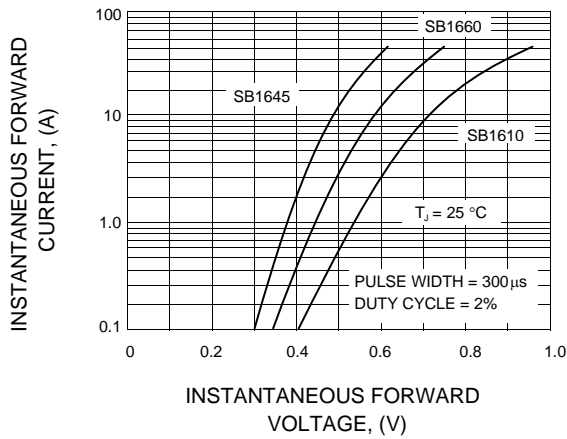
RATING	SYMBOL	SB1645	SB1660	SB16100	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	45	60	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	45	60	100	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	45	60	100	V
Maximum Average Forward Current at T <sub>c</sub> = 125 °C	I <sub>F(AV)</sub>	16			A
Maximum Peak Forward Surge Current @ 8.3 ms sine wave	I <sub>FSM</sub>	250			A
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 16 A	V <sub>F</sub>	0.55	0.70	0.84	V
Maximum Reverse Current at @ (T <sub>J</sub> = 25 °C)	I <sub>R</sub>	1.0			mA
Rated DC Blocking Voltage (Note 1) @ (T <sub>J</sub> = 125 °C)	I <sub>R(H)</sub>	70			mA
Maximum Junction Capacitance (Note 2)	C <sub>J</sub>	900			pF
Thermal Resistance Junction to Case	R <sub>θJC</sub>	1.5			°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 175			°C

### Notes :

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

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V.

## RATING AND CHARACTERISTIC CURVES ( SB1645 - SB16100 )

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

**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**

**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**

**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**
