

SB2045 - SB20100

PRV : 45 - 100 Volts
I_o : 20 Amperes

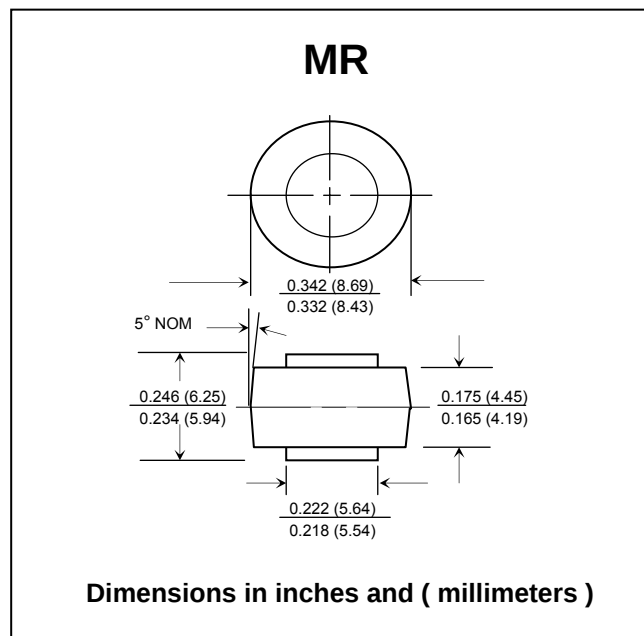
FEATURES :

- * 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 : Plated silver
- * : 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	SB2045	SB2060	SB20100	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	45	60	100	V
Maximum RMS Voltage	V _{RMS}	45	60	100	V
Maximum DC Blocking Voltage	V _{DC}	45	60	100	V
Maximum Average Forward Current at T _c = 135 °C	I _{F(AV)}	20			A
Maximum Peak Forward Surge Current @ 8.3 ms sine wave	I _{FSM}	300			A
Maximum Instantaneous Forward Voltage at I _F = 20 A	V _F	0.55	0.67	0.82	V
Maximum Reverse Current at @ (T _J = 25 °C)	I _R	1.0			mA
Rated DC Blocking Voltage (Note 1) @ (T _J = 125 °C)	I _{R(H)}	70			mA
Maximum Junction Capacitance (Note 2)	C _J	900			pF
Thermal Resistance Junction to Case	R _{θJC}	1.5			°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	- 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 (SB2045 - SB20100)

FIG.1 - FORWARD CURRENT DERATING CURVE

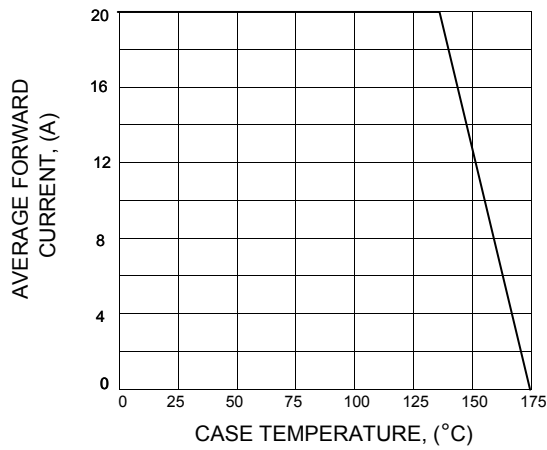


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

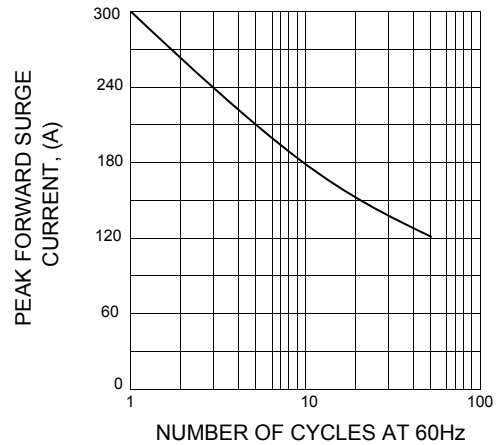


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

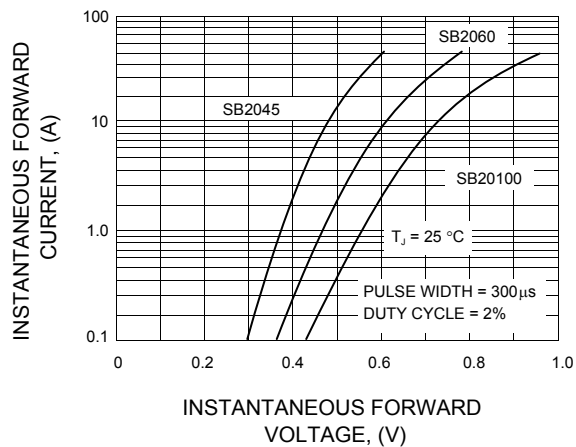


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

