

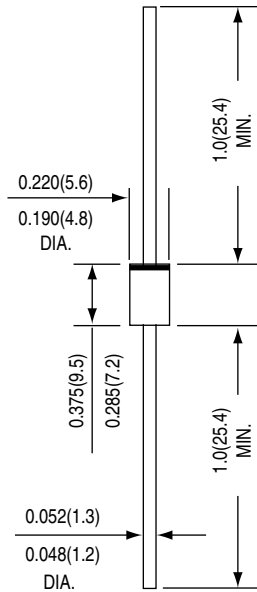


SB840 THRU SB860 SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 40 to 60 Volts

Forward Current - 8.0 Amperes

DO-201AD



*Dimensions in inches and (millimeters)



FEATURES

- * Guardring 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
- * High temperature soldering guaranteed : 260°C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0

MECHANICAL DATA

Case : JEDEC DO-201AD Molded plastic body
Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.04 ounce, 1.12 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

<i>Ratings at 25°C ambient temperature unless otherwise specified.</i>	SYMBOLS	SB840	SB850	SB860	UNITS
Maximum repetitive peak reverse voltage	VRRM	40	50	60	Volts
Maximum RMS voltage	VRMS	28	35	42	Volts
Maximum DC blocking voltage	VDC	40	50	60	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG. 1)	I(AV)	8.0			Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	175			Amps
Maximum instantaneous forward voltage at 8.0 A (NOTE 1)	VF	0.55	0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage TA=25°C TA=100°C	IR	0.5			mA
Typical thermal resistance (NOTE 3)	R θJA	25			°C / W
	R θJL	8.0			
Typical junction capacitance (NOTE 2)	CJ	550			pF
Operating junction temperature range	TJ	-65 to +125			°C
Storage temperature range	TSTG	-65 to +150			°C

NOTES : (1) Pulse test : 300 us pulse width, 1% duty cycle
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 (3) Thermal resistance junction to lead vertical P.C.B. mounted 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES OF SB840 THRU SB860

FIG.1 - FORWARD CURRENT DERATING CURVE

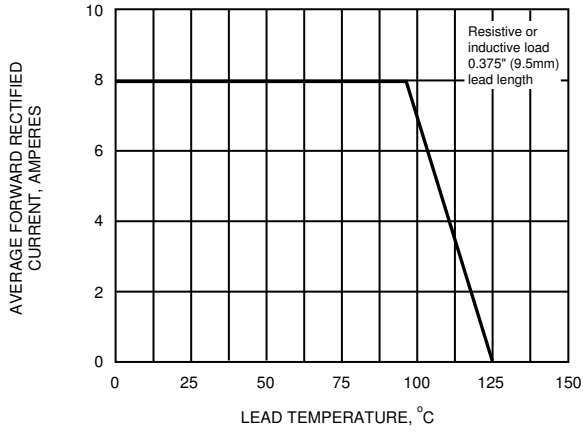


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

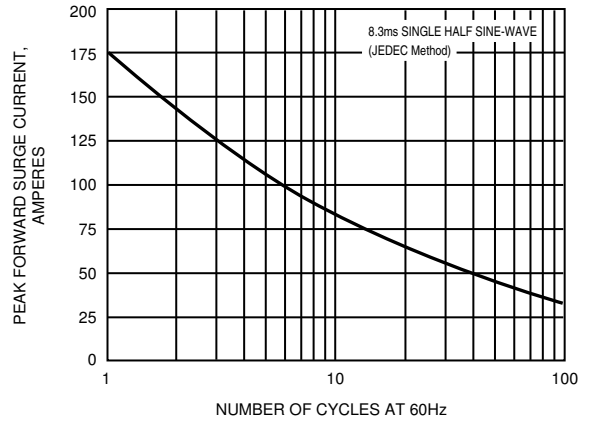


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

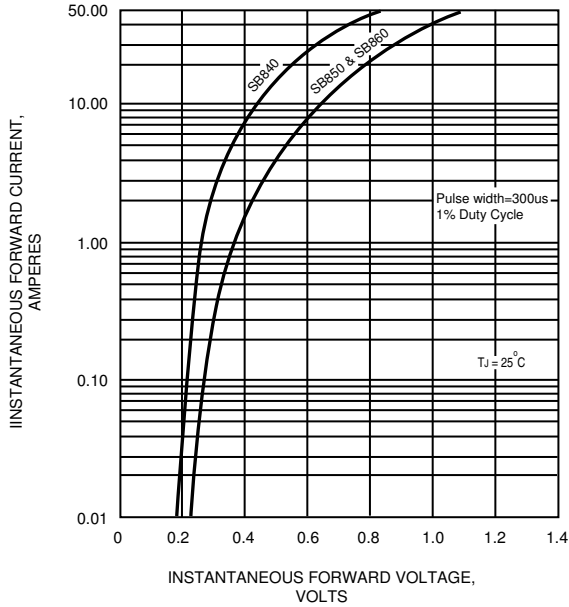


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

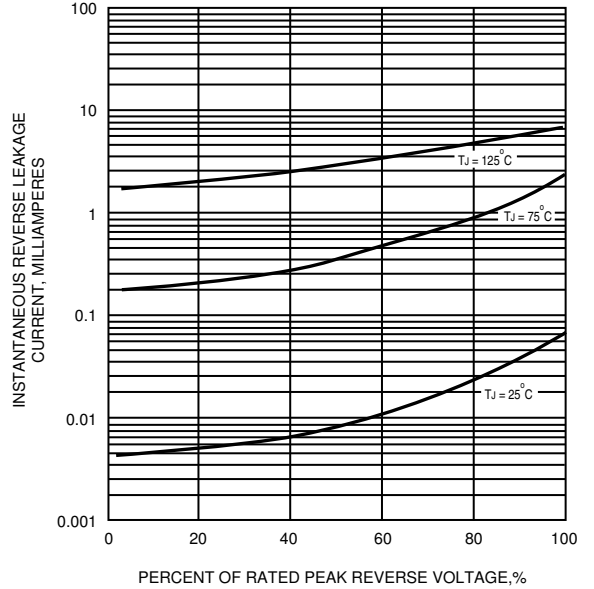


FIG.5 - TYPICAL JUNCTION CAPACITANCE

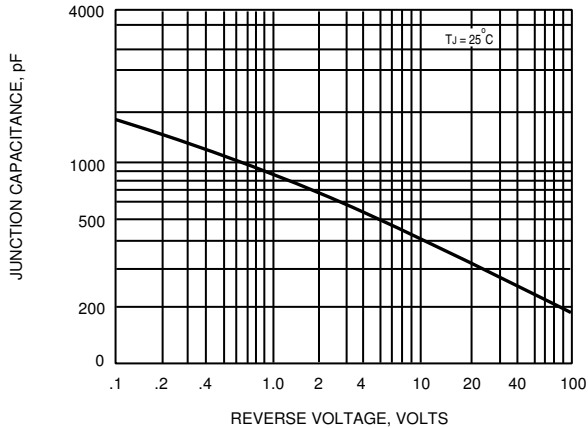


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

