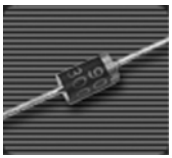
SB320 thru SB360

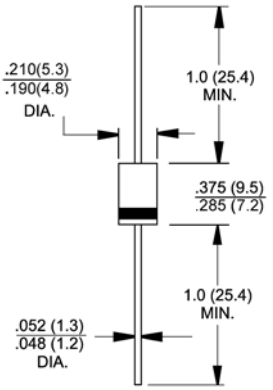
Schottky Barrier Rectifiers
Reverse Voltage 20 to 60 Volts Forward Current 3.0 Amperes

Features

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



DO-201AD



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC DO-201AD molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.041 ounce, 1.15 grams
- Mounting position : Any

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	SB320	SB330	SB340	SB350	SB360	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current .375" (9.5mm) lead lengths (See Fig.1)	$I_{(AV)}$	3.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100.0					Amps
Maximum forward voltage at 3.0A DC	V_F	0.50			0.74		Volts
Maximum DC reverse current @T_J=25°C at rated DC blocking voltage @T_J=100°C	I_R	0.5 20.0					mA
Typical thermal resistance (Note 1)	$R_{\theta JL}$	20			10		°C/W
Typical junction capacitance (Note 2)	C_J	250					pF
Operating junction temperature range	T_J	-55 to +125					°C
Storage temperature range	T_{STG}	-55 to +150					°C

Notes: 1. Thermal Resistance Junction to Lead.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

FIG.1 - FORWARD CURRENT DERATING CURVE

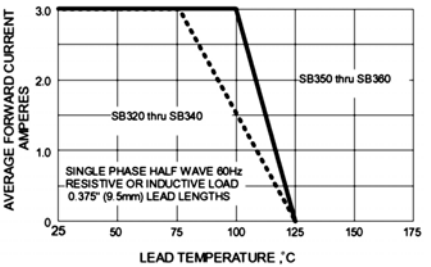


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

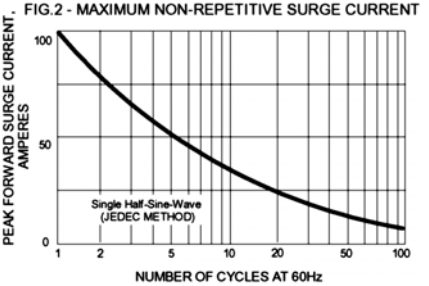


FIG.3 - TYPICAL JUNCTION CAPACITANCE

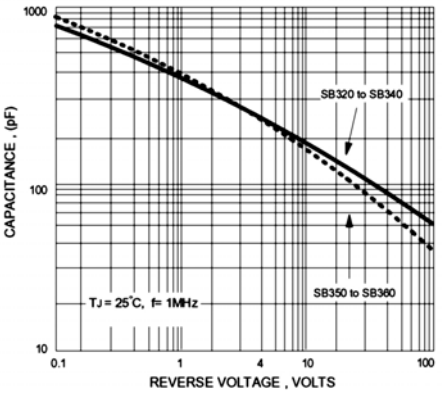


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

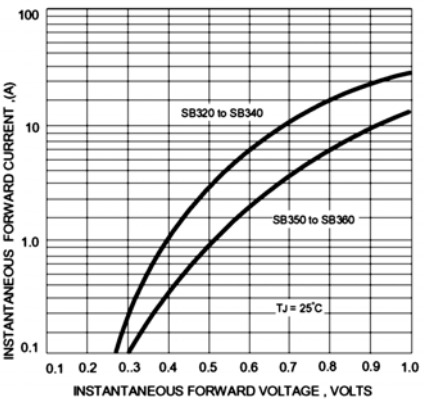


FIG.5 - TYPICAL REVERSE CHARACTERISTICS