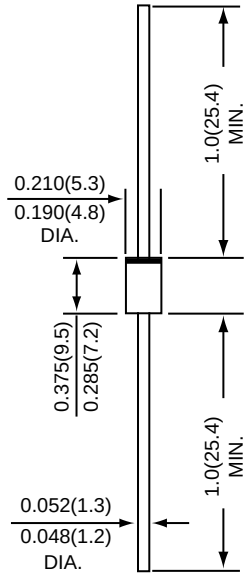
SB320H THRU SB3100H

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts *Forward Current - 3.0 Amperes*

DO-201AD



*Dimensions in inches and (millimeters)



FEATURES

* Halogen-free type
* Compliance to RoHS product
* Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
* Guardring for overvoltage protection
* Low power loss, high efficiency
* High current capability, low forward voltage drop
* 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

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

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SB320H***	***SB340H***	***SB360H***	***SB3100H***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	100	Volts
Maximum RMS voltage	V_{RMS}	14	28	42	70	Volts
Maximum DC blocking voltage	V_{DC}	20	40	60	100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	$I_{(AV)}$	3.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80				Amps
Maximum instantaneous forward voltage at 3.0 A (NOTE 1)	V_F	0.5		0.70	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage T_A=25°C	I_R	0.5				mA
T_A=100°C		20		10		
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40				°C / W
	$R_{\theta JL}$	10				
Operating junction temperature range	T_J	-65 to +125		-65 to +150		°C
Storage temperature range	T_{STG}	-65 to +150				°C

NOTES : (1) Pulse test 300us pulse widh, 1% duty cycle
(2) Thermal resistance from junction to lead vertical P.C.B. mounting 0.50" (12.7mm) lead length with 2.5 x 2.5" (63.5 x 63.5mm) copper pad

RATINGS AND CHARACTERISTIC CURVES SB320H THRU SB3100H

FIG.1 - FORWARD CURRENT DERATING CURVE

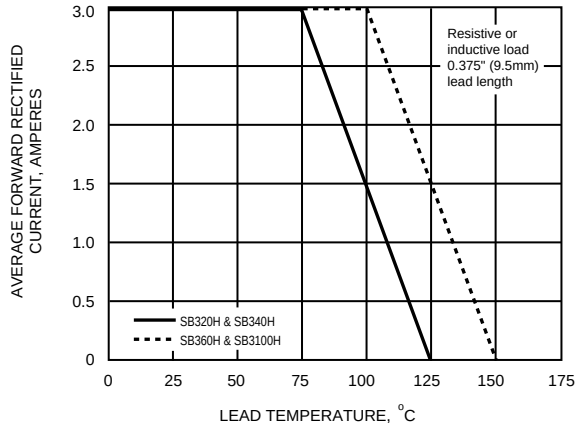


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

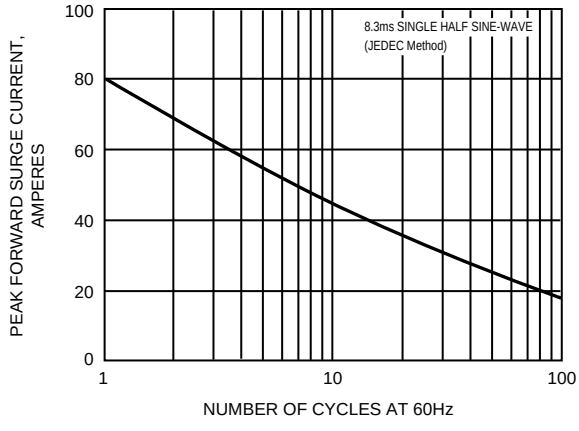


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

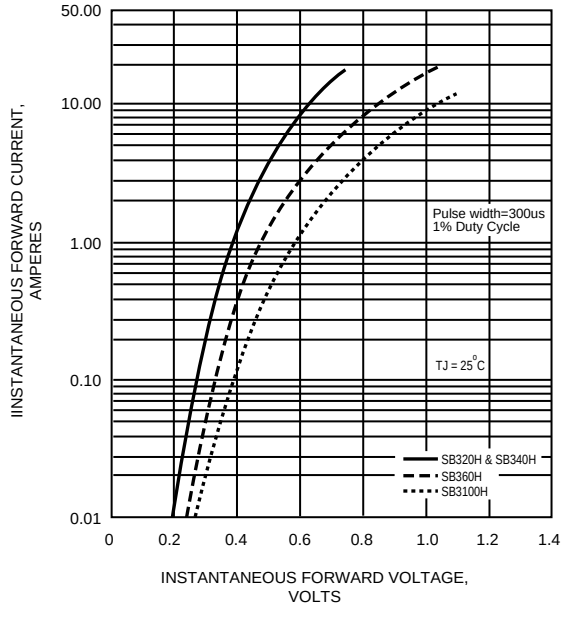


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

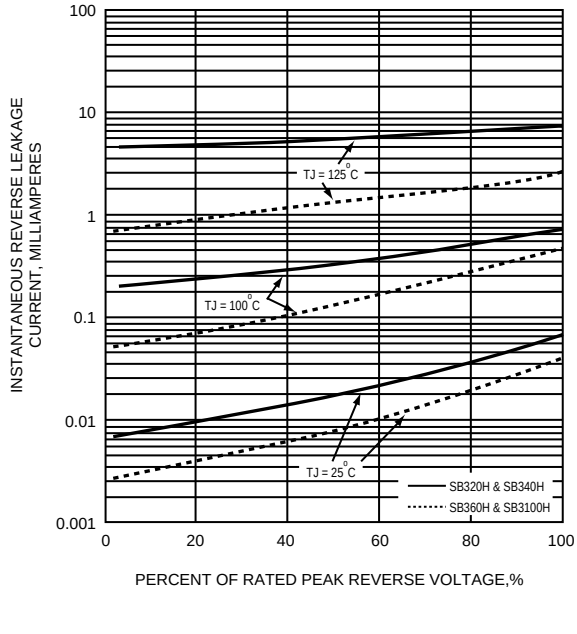


FIG.5 - TYPICAL JUNCTION CAPACITANCE

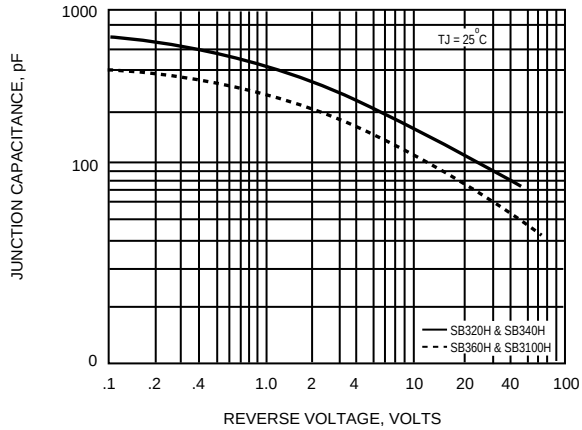


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

