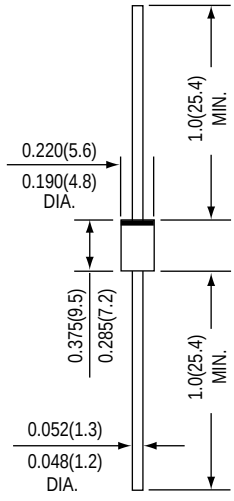
SB520H THRU SB5100H
SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts *Forward Current - 5.0 Amperes*

DO-201AD



*Dimensions in inches and (millimeters)



FEATURES

* Halogen-free type
* Compliance to RoHS product
* Guardring for overvoltage protection
* Low power loss, high efficiency
* High current capability, low forward voltage drop
* High surge capability
* 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

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***SB520H***	***SB540H***	***SB560H***	***SB5100H***	*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)	$I_{(AV)}$	5.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150				Amps
Maximum instantaneous forward voltage at 5.0 A (NOTE 1)	V_F	0.55		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		50		25		
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	25				°C / W
	$R_{\theta JL}$	8.0				
Operating junction temperature range	T_J	-65 to +125		-65 to +150		°C
Storage temperature range	T_{STG}	-65 to +150				°C

NOTES : (1) Pule test : 300 us pulse width, 1% duty cycle
(2) Thermal resistance junction to lead vertical P.C.B. mounted 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES SB520H THRU SB5100H

FIG.1 - FORWARD CURRENT DERATING CURVE

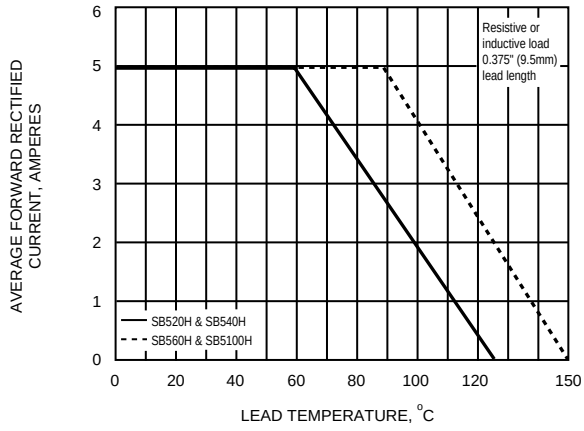


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

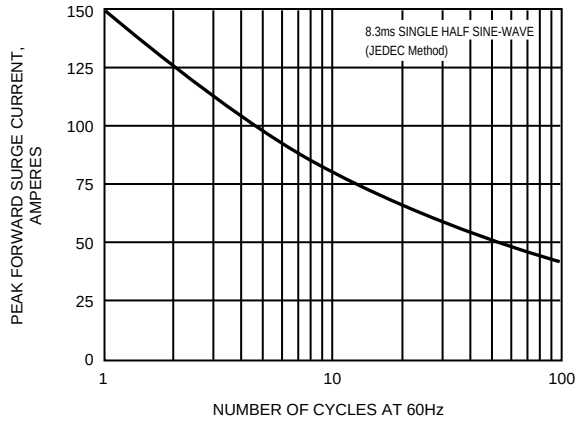


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

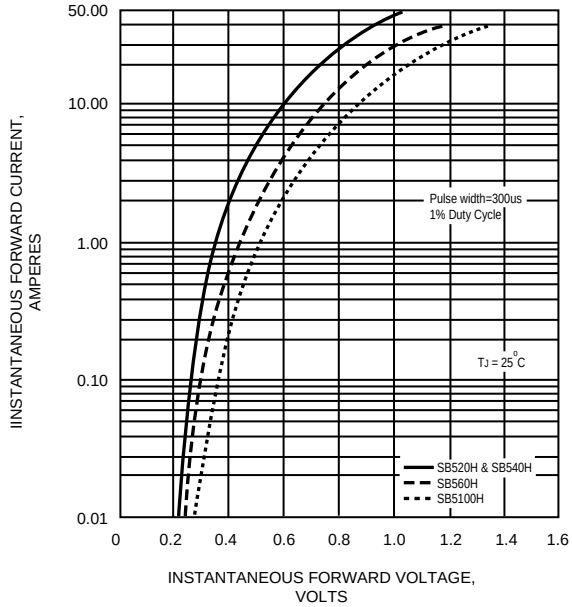


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

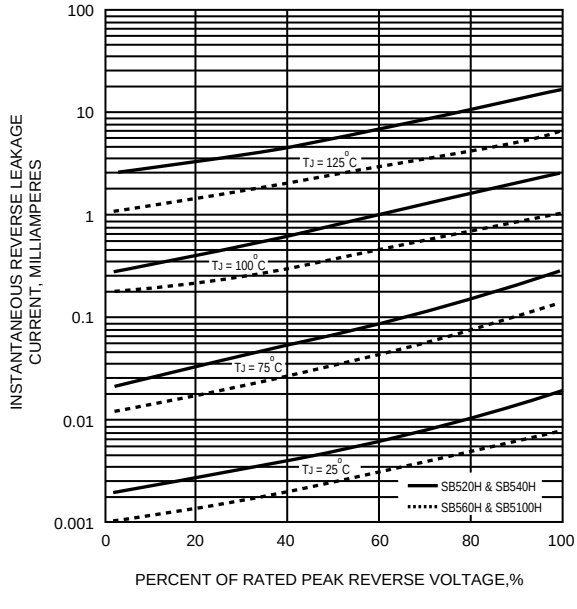


FIG.5 - TYPICAL JUNCTION CAPACITANCE

