SMH201B THRU SMH208B

2.0 AMP SURFACE MOUNT HIGH EFFICIENCY RECTIFIERS

GW

FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Fast switching speed

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any

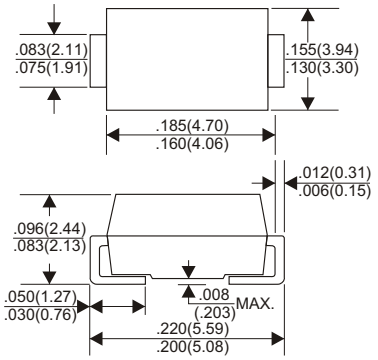
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

2.0 Amperes

DO-214AA(SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SMH 201B	SMH 202B	SMH 203B	SMH 204B	SMH 205B	SMH 206B	SMH 207B	SMH 208B	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_L=75℃	2.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	60								A
Maximum Instantaneous Forward Voltage at 2.0A		1.0		1.3		1.85			V
Maximum DC Reverse Current Ta=25℃	5.0								μA
at Rated DC Blocking Voltage Ta=100℃	100								μA
Maximum Reverse Recovery Time (Note 1)		50					75		nS
Typical Junction Capacitance (Note 2)	25								pF
Operating and Storage Temperature Range T_J, T_{STG}	-65 — +150								℃

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SMH201B THRU SMH208B)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

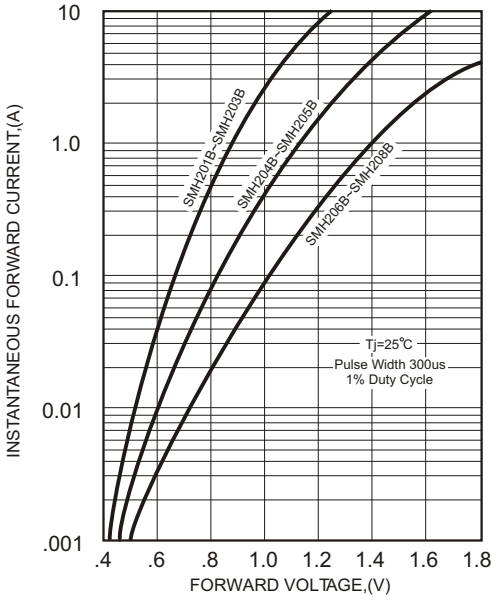


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

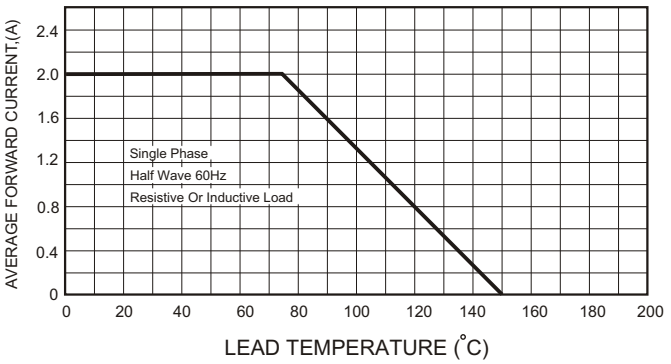
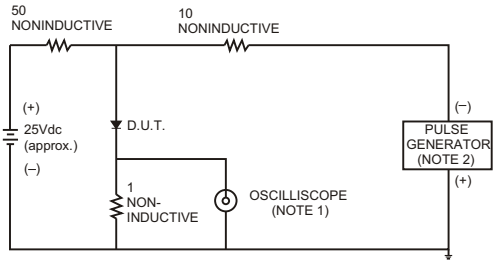


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

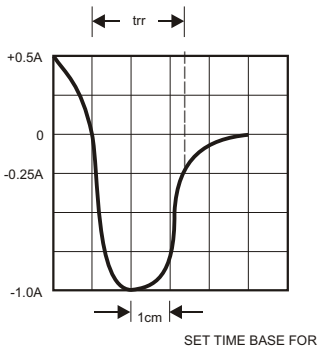


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

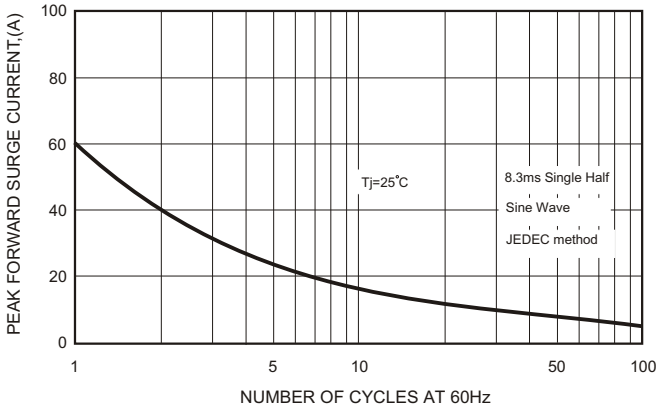
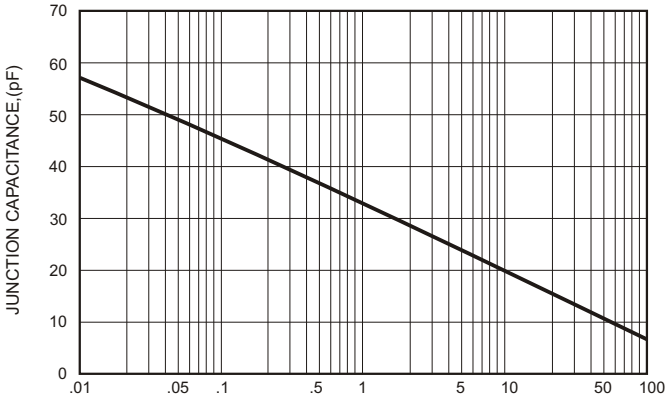



FIG.5-TYPICAL JUNCTION CAPACITANCE