SM5820B THRU SM5822B

3.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

GW



FEATURES

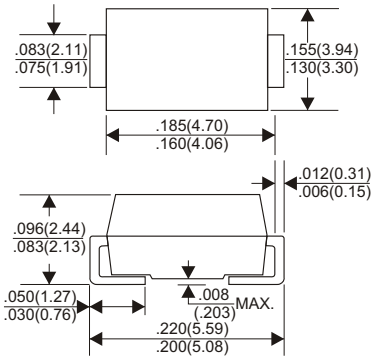
* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Low forward voltage drop

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.093 grams

VOLTAGE RANGE
20 to 40 Volts
CURRENT
3.0 Ampere

DO-214AA(SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM5820B	SM5821B	SM5822B	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=75˚C	3.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	80			A
Maximum Instantaneous Forward Voltage at 3.0A	0.475	0.500	0.525	V
Maximum DC Reverse Current Ta=25˚C	2.0			mA
at Rated DC Blocking Voltage Ta=100˚C	20			mA
Typical Junction Capacitance (Note1)	300			pF
Typical Thermal Resistance R JA (Note 2)	17			˚C/W
Operating Temperature Range T_J	-65 — +125			˚C
Storage Temperature Range T_{STG}	-65 — +150			˚C

NOTES:

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

2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM5820B THRU SM5822B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

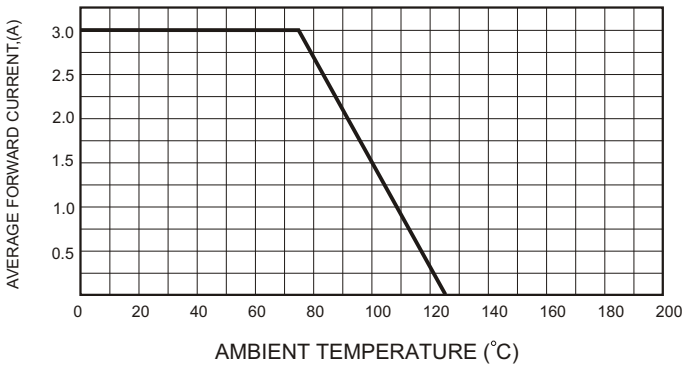


FIG.2-TYPICAL FORWARD CHARACTERISTICS

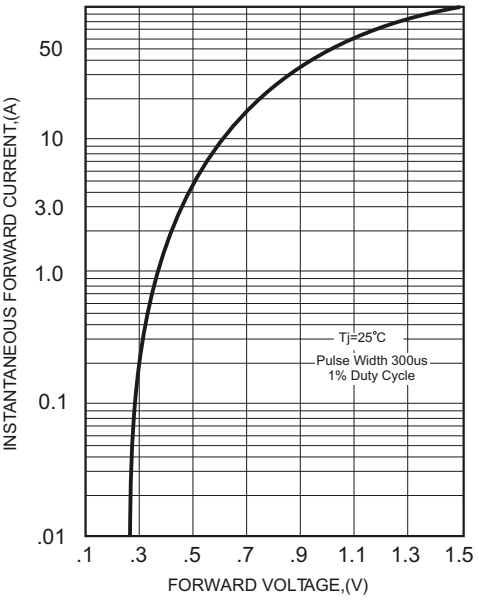


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

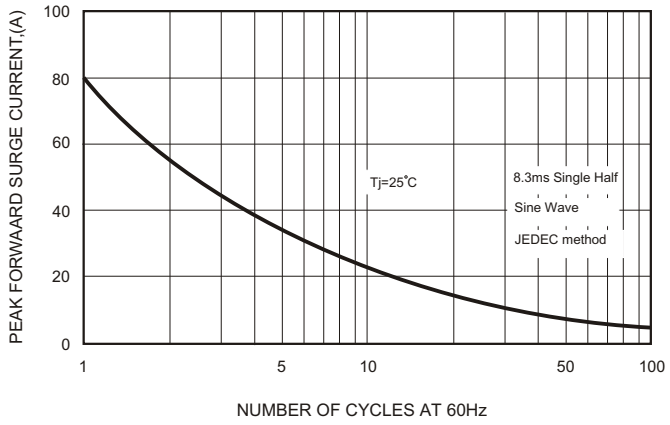


FIG.4-TYPICAL JUNCTION CAPACITANCE

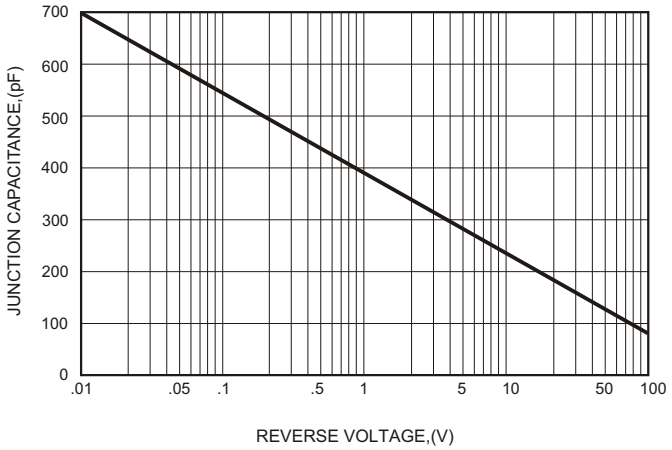


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

