

# SM320A THRU SM3100A

# GW

## 3.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS



### 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: 0.063 grams

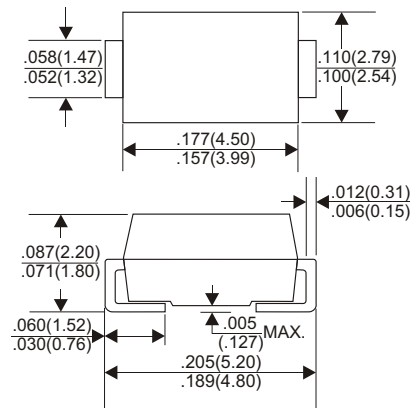
### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

3.0 Ampere

#### DO-214AC(SMA)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SM320A	SM330A	SM340A	SM350A	SM360A	SM380A	SM390A	SM3100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	90	100	V
Maximum RMS Voltage	14	21	28	35	42	56	63	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current	3.0								A
At T <sub>L</sub> =100°C									
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100								A
Maximum Instantaneous Forward Voltage at 3.0A	0.55			0.75		0.85			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 <sub>JL</sub> (Note 2)	10								°C/W
Operating Temperature Range T <sub>J</sub>	-65 — +125								°C
Storage Temperature Range T <sub>STG</sub>	-65 — +150								°C

#### NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead.

## RATING AND CHARACTERISTIC CURVES (SM320A THRU SM3100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

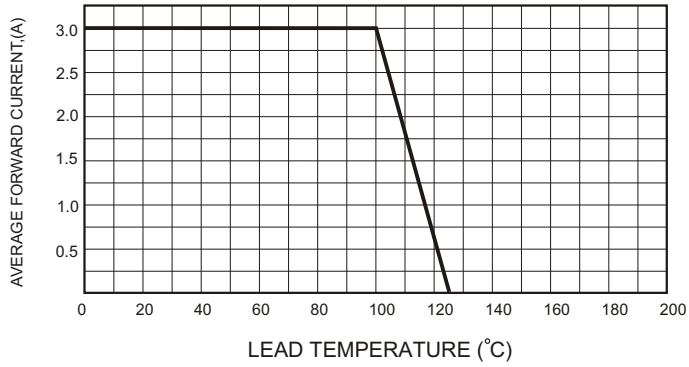


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

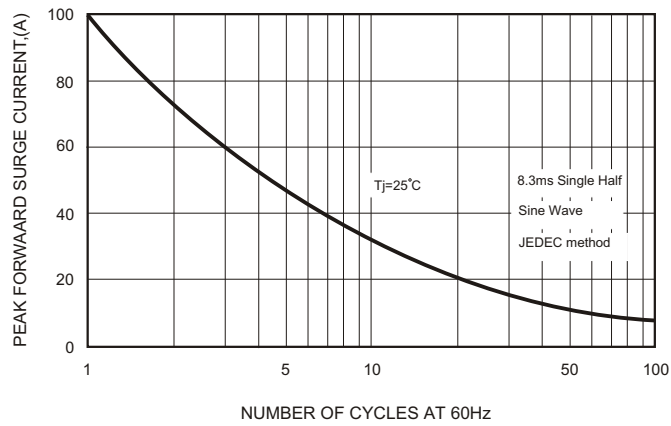


FIG.4-TYPICAL JUNCTION CAPACITANCE

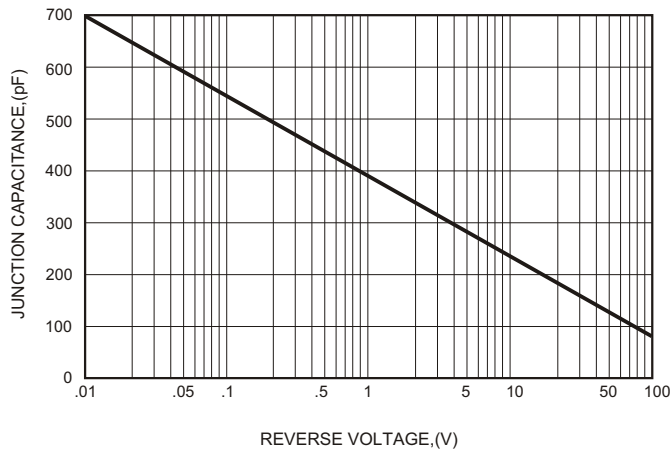


FIG.2-TYPICAL FORWARD CHARACTERISTICS

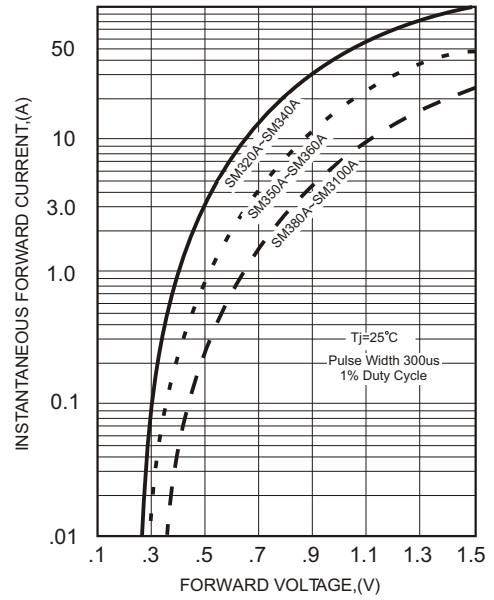


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

