

# SM520A THRU SM5100A



## 5.0 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: 0.055 grams

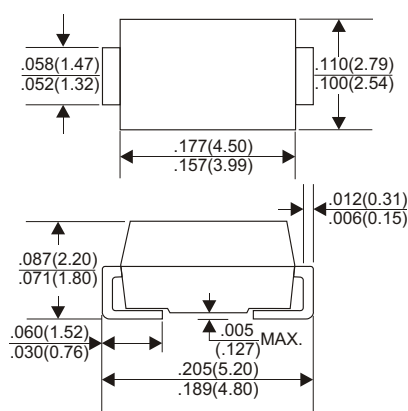
### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

5.0 Amperes

#### DO-214AC(SMA)



Dimensions in inches and (millimeters)

## 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	SM520A	SM530A	SM540A	SM550A	SM560A	SM580A	SM5100A	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at $T_L=80^\circ\text{C}$	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.75		0.85		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a=25^\circ\text{C}$	0.5							mA
$T_a=100^\circ\text{C}$	20							mA
Typical Junction Capacitance (Note1)	300							pF
Typical Thermal Resistance $R_{\theta JL}$ (Note 2)	10							$^\circ\text{C}/\text{W}$
Operating Temperature Range $T_j$	-65 — +150							$^\circ\text{C}$
Storage Temperature Range $T_{stg}$	-65 — +150							$^\circ\text{C}$

#### NOTES:

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

## RATING AND CHARACTERISTIC CURVES (SM520A THRU SM5100A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

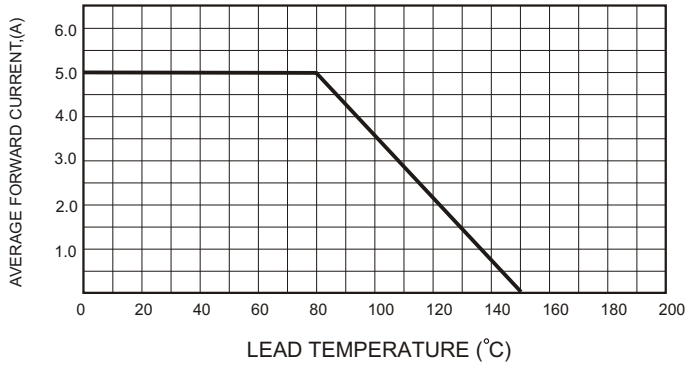


FIG.2-TYPICAL FORWARD CHARACTERISTICS

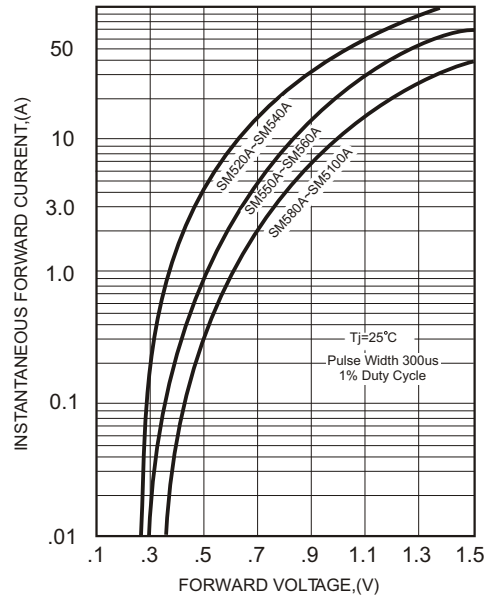


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

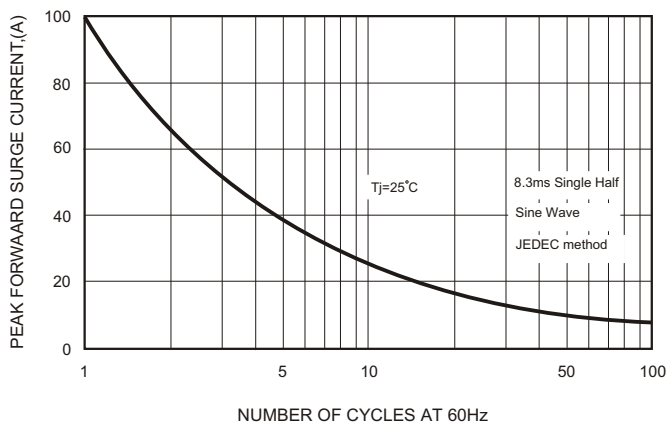


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

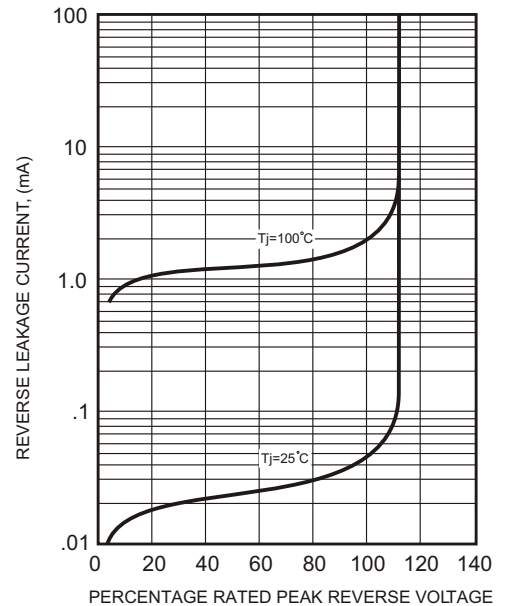


FIG.4-TYPICAL JUNCTION CAPACITANCE

