

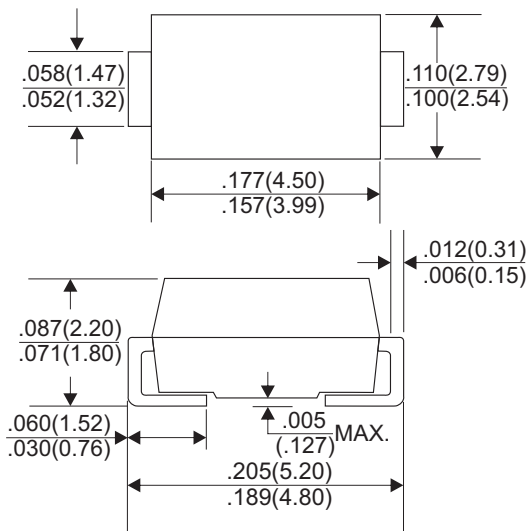


# SM520A THER SM5200A

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 Volts    Forward Current - 5.0 Ampere

### DO-214AC(SMA)



Dimensions in inches and (millimeters)

## FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Metal silicon junction, majority carrier conduction
- \* Low power loss, high efficiency
- \* Built-in strain relief, ideal for automated placement
- \* High forward surge current capability
- \* High temperature soldering guaranteed: 250°C/10 seconds at terminals

## MECHANICAL DATA

- \* Case: Molded plastic
- \* Terminals: leads solderable per MIL-STD-750, Method 2026
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any

## 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	SM 520A	SM 530A	SM 540A	SM 550A	SM 560A	SM 580A	SM 5100A	SM 5150A	SM 5200A	UNITS		
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	150	200	V		
Maximum RMS Voltage	14	21	28	35	42	56	70	105	140	V		
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	150	200	V		
Maximum Average Forward Rectified Current												
See Fig. 1										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		0.70		0.85		0.95			V		
Maximum DC Reverse Current										0.05	mA	
at Rated DC Blocking Voltage										10	mA	
Typical Junction Capacitance (Note 1)	500				300						pF	
Typical Thermal Resistance RθJA (Note 2)										55	°C/W	
Operating Temperature Range T <sub>J</sub>	-65 — +125				-65 — +150							°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 Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

# RATING AND CHARACTERISTIC CURVES (SM520A THRU SM5200A)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

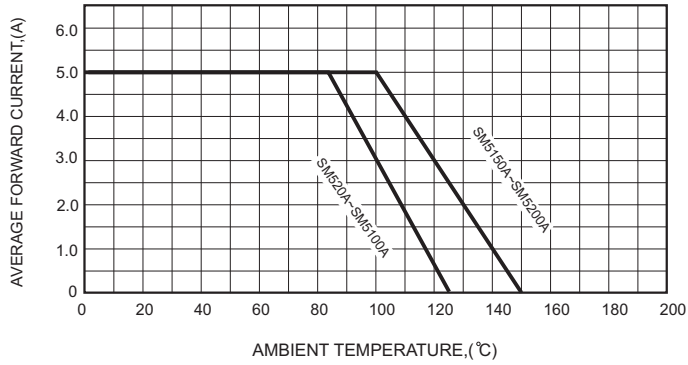


FIG.2-TYPICAL FORWARD CHARACTERISTICS

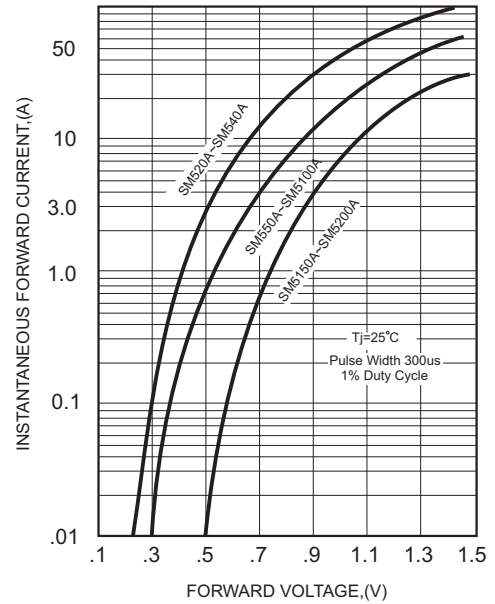


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

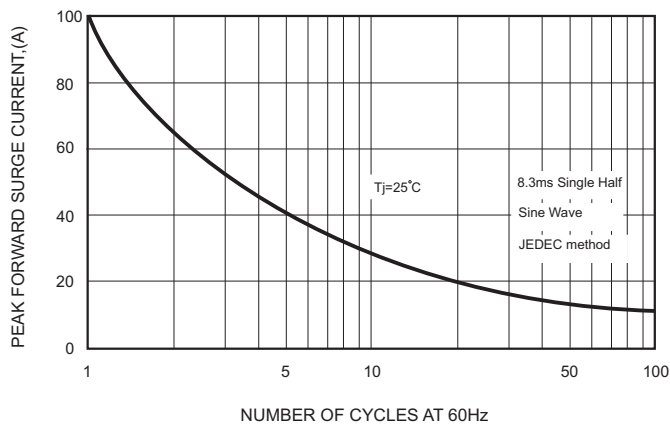


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

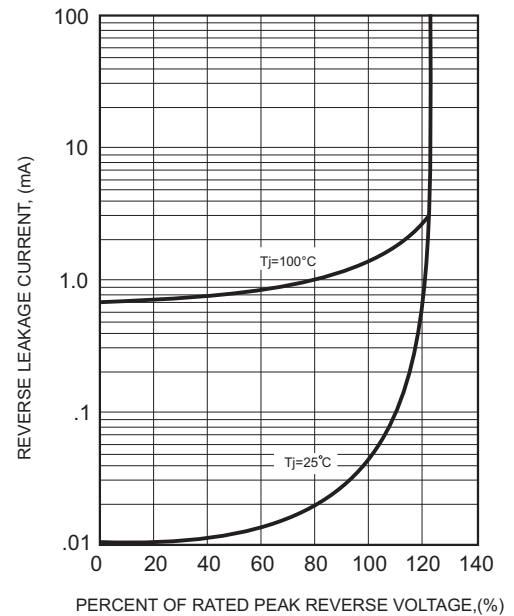


FIG.4-TYPICAL JUNCTION CAPACITANCE

