

# SM520B THRU SM5100B



## 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

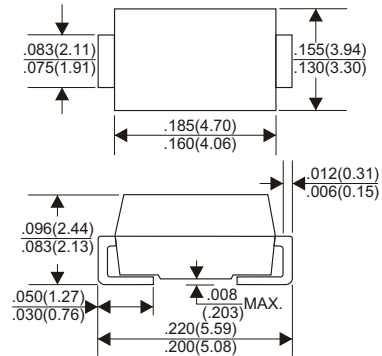
### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

5.0 Amperes

### DO-214AA(SMB)



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	SM520B	SM530B	SM540B	SM550B	SM560B	SM580B	SM5100B	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 $T_L=90^\circ\text{C}$	5.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.75		0.85			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	Ta=25°C			0.5			mA	
	Ta=100°C			20			mA	
Typical Junction Capacitance (Note1)	300			pF				
Typical Thermal Resistance $R_{\theta JL}$ (Note 2)	10			°C/W				
Operating Temperature Range $T_J$	-65 — +150			°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 Lead.

## RATING AND CHARACTERISTIC CURVES (SM520B THRU SM5100B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

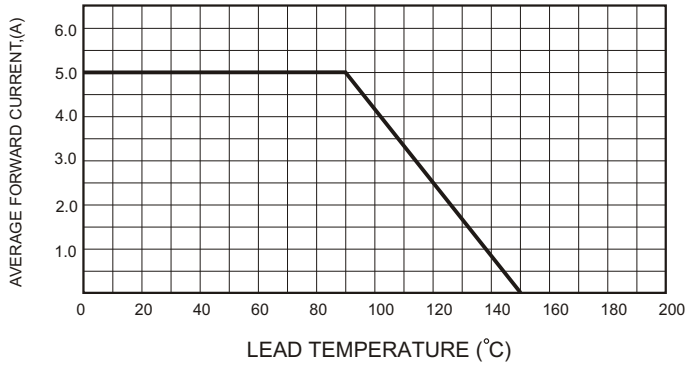


FIG.2-TYPICAL FORWARD CHARACTERISTICS

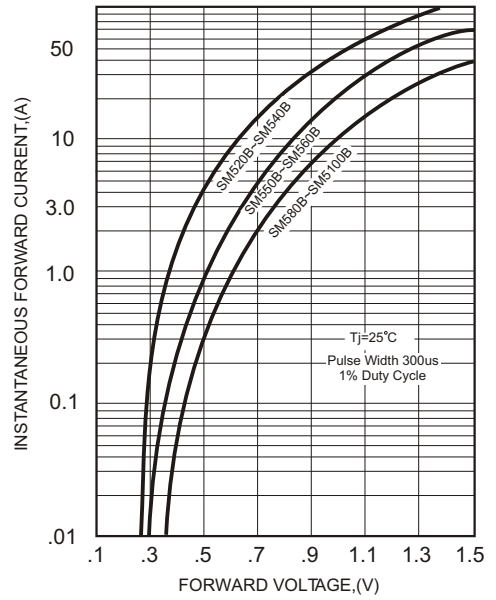


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

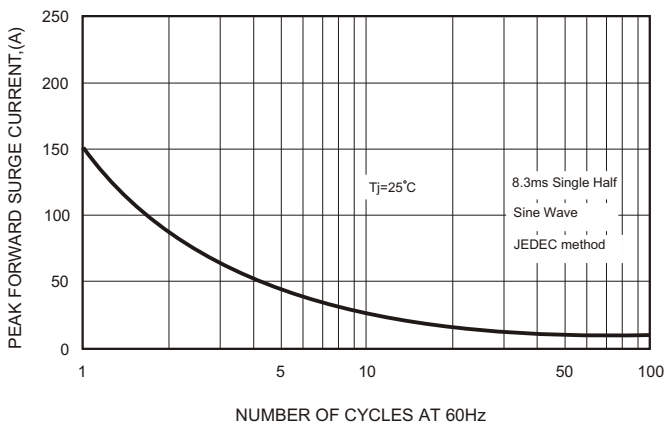


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

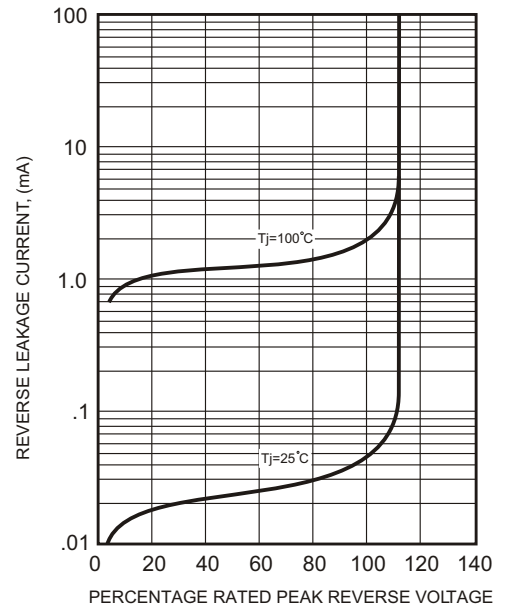


FIG.4-TYPICAL JUNCTION CAPACITANCE

