

**SM520C THRU SM560C****GW****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**

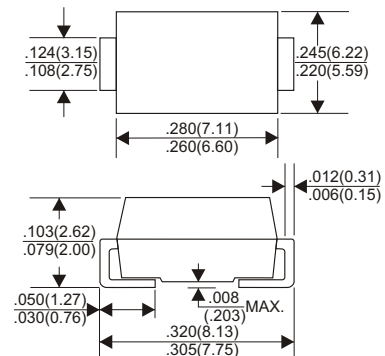
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Metallurgically bonded construction
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.21 grams

**VOLTAGE RANGE**

20 to 60 Volts

**CURRENT**

5.0 Ampere

**DO-214AB(SMC)**

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  | SM520C     | SM530C | SM540C | SM550C | SM560C | UNITS |
|--|------------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage   | 20         | 30     | 40     | 50     | 60     | V     |
| Maximum RMS Voltage  | 14         | 21     | 28     | 35     | 42     | V     |
| Maximum DC Blocking Voltage  | 20         | 30     | 40     | 50     | 60     | 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) | 175        |        |        |        |        | A     |
| Maximum Instantaneous Forward Voltage at 5.0A  | 0.55       |        | 0.70   |        |        | V     |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$  | 0.5        |        |        |        |        | mA    |
| at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$   | 20         |        |        |        |        | mA    |
| Typical Junction Capacitance (Note1)   | 300        |        |        |        |        | pF    |
| Typical Thermal Resistance R <sub>JL</sub> (Note 2)  | 10         |        |        |        |        | °C/W  |
| Operating Temperature Range $T_j$  | -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 Lead.

## RATING AND CHARACTERISTIC CURVES (SM520C THRU SM560C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

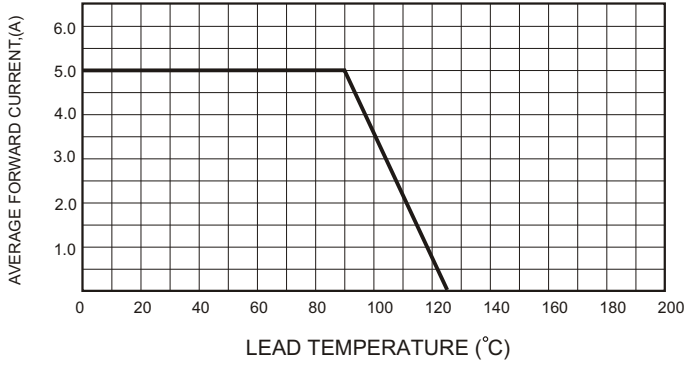


FIG.2-TYPICAL FORWARD CHARACTERISTICS

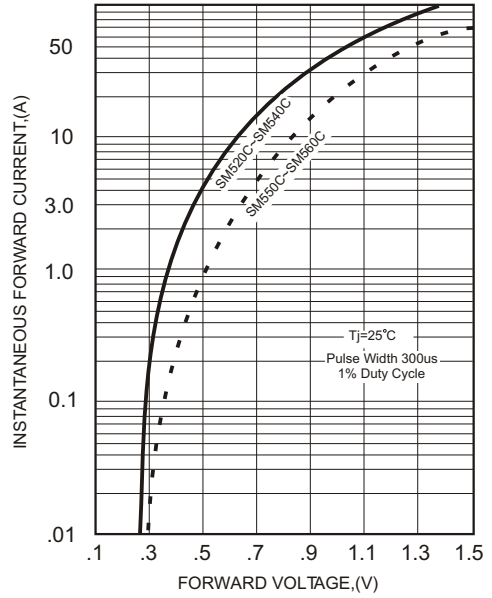


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

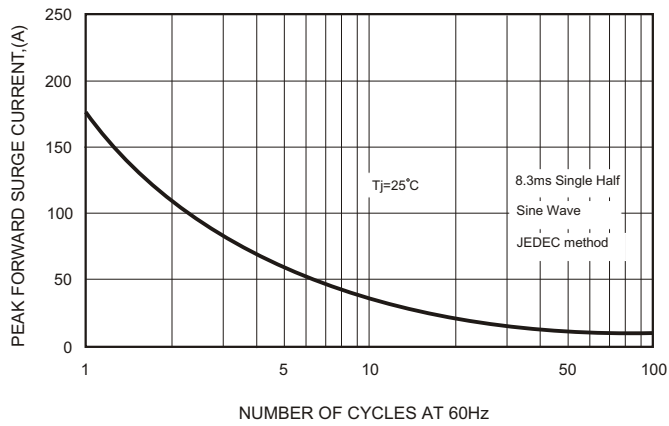


FIG.4-TYPICAL JUNCTION CAPACITANCE

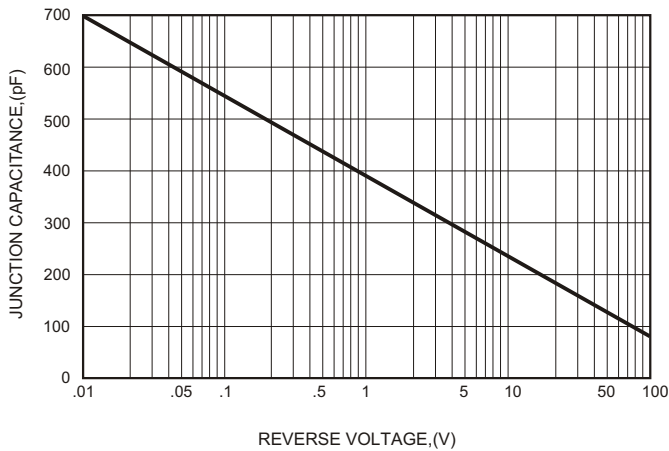


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

