

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

SM220 THRU SM260

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 60 Volts

CURRENT - 2.0 Amperes

### **FEATURES**

- \* High current capability
- \* Ideal for surface mounted applications
- \* Low leakage current for high efficiency

#### MECHANICAL DATA

\* Case: Molded plastic

\* Epoxy: UL 94V-0 rate flame retardant

\*Terminals: Solder plated solderable per

MIL-STD-202E, Method 208 guaranteed

\* Polarity: Color band denotes cathode end

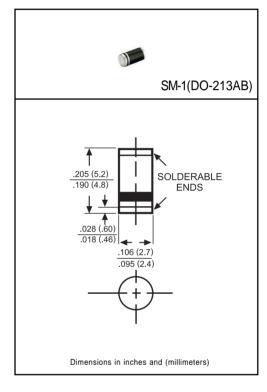
\* Mounting position: Any

\* Weight: 0.12 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25  $^{\circ}\text{C}$  ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

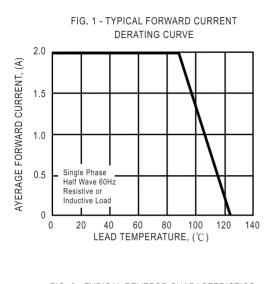


|   |             | SYMBOL         | SM220        | SM230 | SM240 | SM250 | SM260 | UNITS |
|---|-------------|----------------|--------------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage  |             | VRRM           | 20           | 30    | 40    | 50    | 60    | Volts |
| Maximum RMS Voltage   |             | VRMS           | 14           | 21    | 28    | 35    | 42    | Volts |
| Maximum DC Blocking Voltage   |             | VDC            | 20           | 30    | 40    | 50    | 60    | Volts |
| Maximum Average Forward Rectified Current at TA=90°C  |             | lo             | 2.0          |       |       |       |       | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) |             | IFSM           | 40           |       |       |       | Amps  |       |
| Maximum Instantaneous Forward Voltage at 2.0A DC  |             | VF             | .45          | .55   | .60   | .7    | 75    |       |
| Maximum DC Reverse Current at Rated DC Blocking Voltage   | @Ta = 25°C  | l <sub>R</sub> | 2.0          |       |       |       |       | mAmps |
|   | @Ta = 100°C |                | 20           |       |       |       |       |       |
| Typical Thermal Resistance (Note1)  |             | RθJA           | 40           |       |       |       |       | °C/W  |
| Typical Junction Capacitance (Note 2)   |             | Cı             | 200          |       |       |       |       | pF    |
| Storage Operating Temperature Range   |             | TJ, TSTG       | -65 to + 125 |       |       |       |       | °C    |

NOTES: 1. Thermal Resistance (Junction to Ambient), .24in<sub>2</sub> (6.0mm<sub>2</sub>) copper pads to each terminal.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

## RATING AND CHARACTERISTIC CURVES (SM220 THRU SM260)



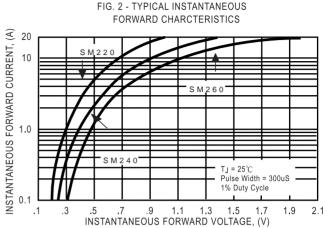


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS 100 INSTANTANEOUS REVERSE CURRENT (mA) TJ = 125℃ 10 1.0 TJ = 75°C 0.1 .01 TJ = 25℃ .001 10 20 40 60 80 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

