

SM5150B THRU SM5200B



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

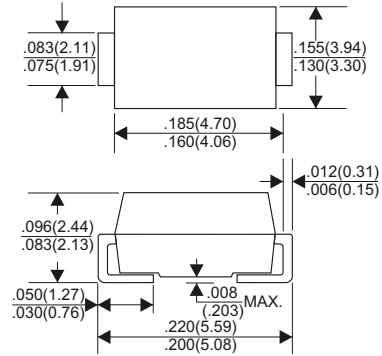
VOLTAGE RANGE

150 to 200 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 | SM5150B | SM5200B | UNITS |
|---|------------|---------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | 150 | 200 | V |
| Maximum RMS Voltage | 105 | 140 | V |
| Maximum DC Blocking Voltage | 150 | 200 | 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) | 120 | | A |
| Maximum Instantaneous Forward Voltage at 5.0A | 0.92 | | V |
| Maximum DC Reverse Current $T_a=25^\circ\text{C}$ | 0.5 | | mA |
| at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$ | 10 | | mA |
| Typical Junction Capacitance (Note1) | 250 | | PF |
| Typical Thermal Resistance $R_{\theta JL}$ (Note 2) | 10 | | $^\circ\text{C/W}$ |
| 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 (SM5150B THRU SM5200B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

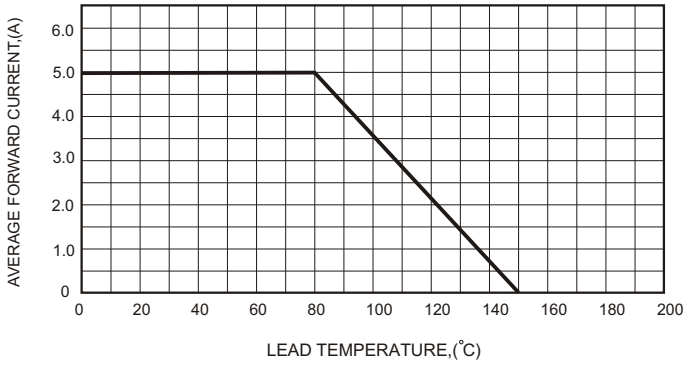


FIG.2-TYPICAL FORWARD CHARACTERISTICS

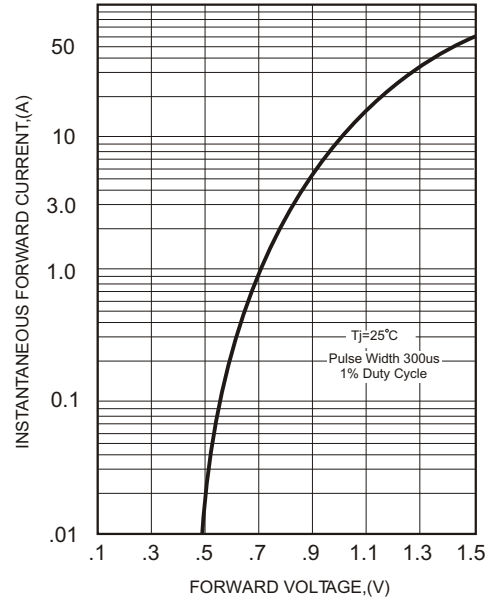


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

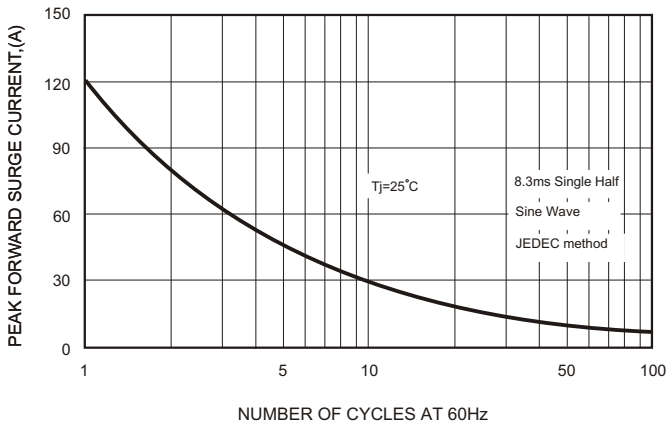


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

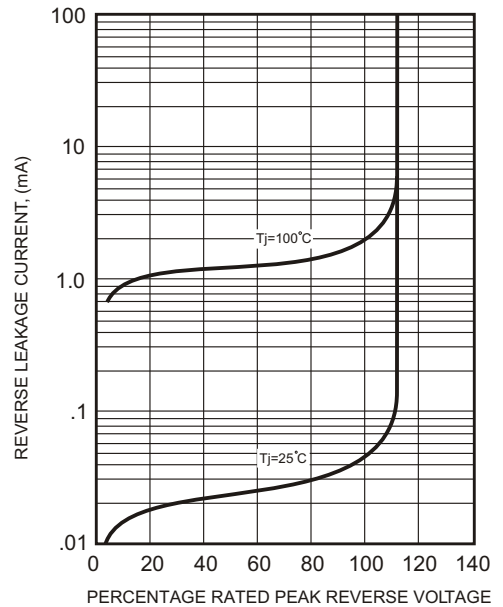


FIG.4-TYPICAL JUNCTION CAPACITANCE

