

SM320B THRU SM3100B



3.0 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: 0.093 grams

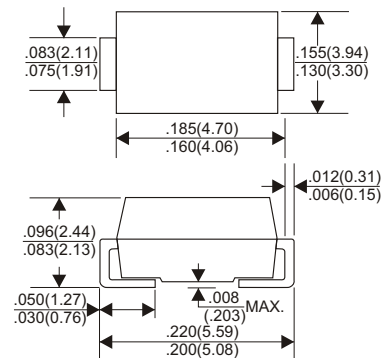
VOLTAGE RANGE

20 to 100 Volts

CURRENT

3.0 Ampere

DO-214AA(SMB)



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 | SM320B | SM330B | SM340B | SM350B | SM360B | SM380B | SM390B | SM3100B | UNITS | |
|--|--------|--------|--------|--------|------------|--------|--------|---------|-------|---|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V | |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum Average Forward Rectified Current | | | | | | | | | | |
| At T _L =100°C | | | | | | | | | 3.0 | 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 3.0A | 0.55 | | 0.75 | | 0.85 | | | | V | |
| Maximum DC Reverse Current | | | | | 2.0 | | mA | | | |
| at Rated DC Blocking Voltage | | | | | 20 | | mA | | | |
| Typical Junction Capacitance (Note 1) | | | | | 300 | | pF | | | |
| Typical Thermal Resistance R _{JL} (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 (SM320B THRU SM3100B)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

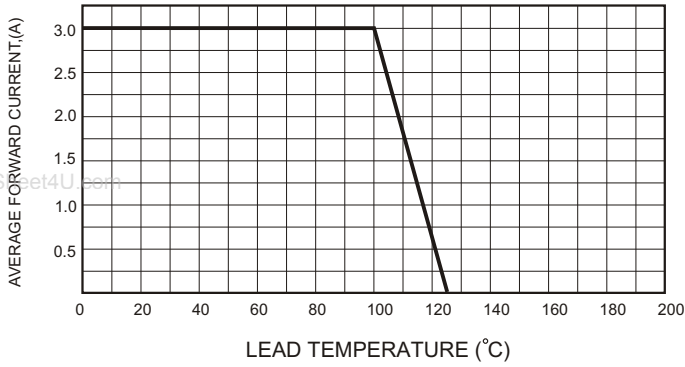


FIG.2-TYPICAL FORWARD CHARACTERISTICS

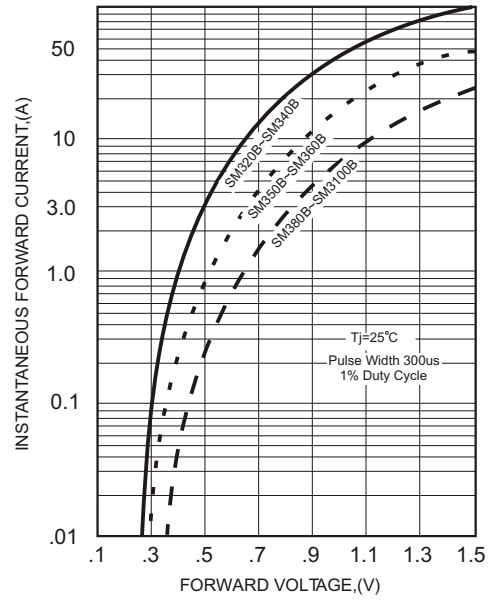


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

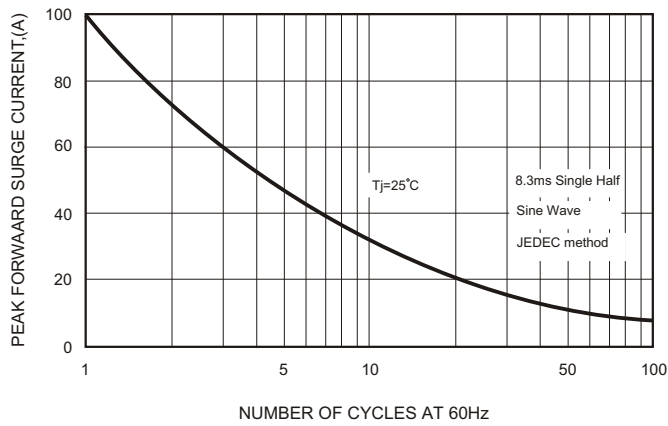


FIG.4-TYPICAL JUNCTION CAPACITANCE

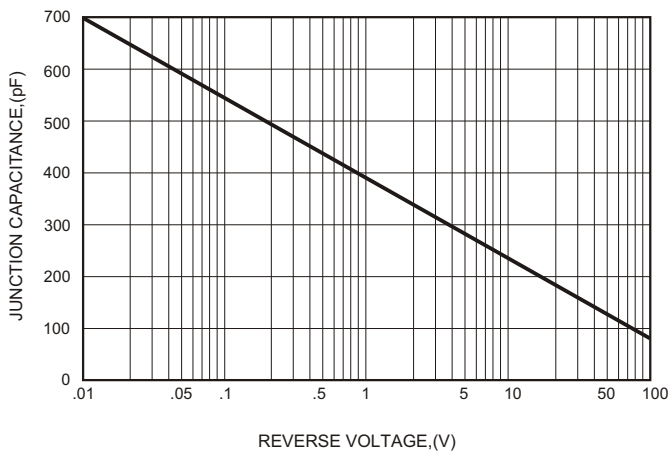


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

