

SM320C THRU SM3100C



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

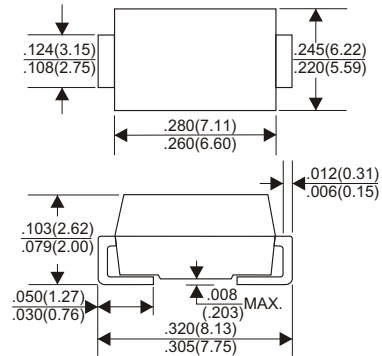
VOLTAGE RANGE

20 to 100 Volts

CURRENT

3.0 Amperes

DO-214AB(SMC)



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 | SM320C | SM330C | SM340C | SM350C | SM360C | SM380C | SM3100C | 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 $T_L=100^\circ\text{C}$ | 3.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 80 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 3.0A | 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 θ JL (Note 2) | 10 | | | | °C/W | | | |
| Operating Temperature Range Tj | -65 — +150 | | | | | | | °C |
| Storage Temperature Range Tstg | -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 (SM320C THRU SM3100C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

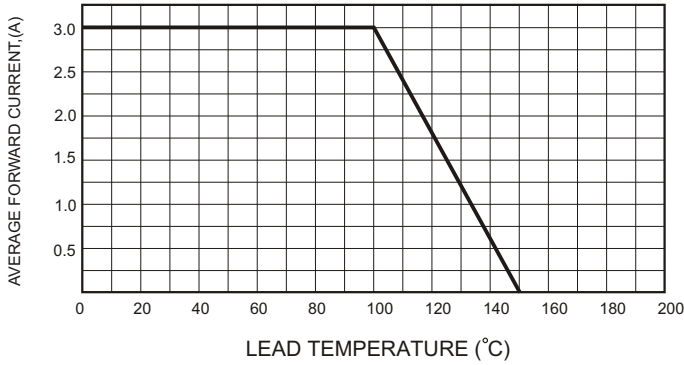


FIG.2-TYPICAL FORWARD CHARACTERISTICS

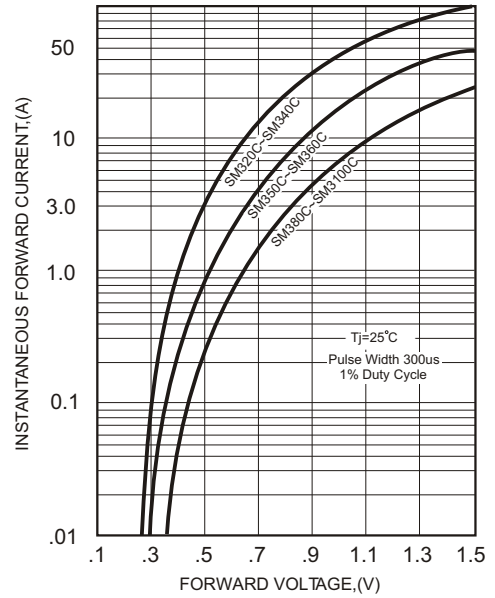


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

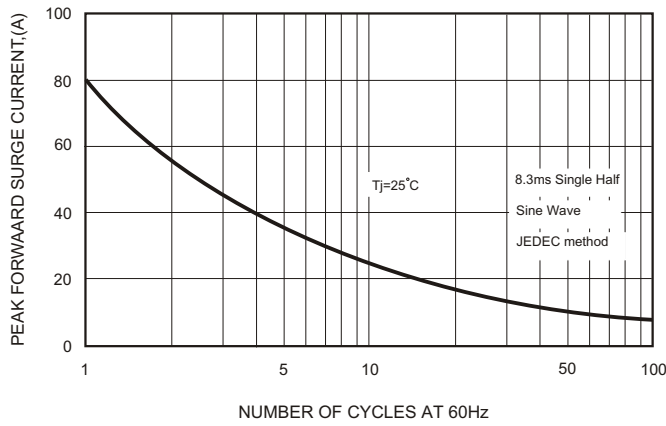


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

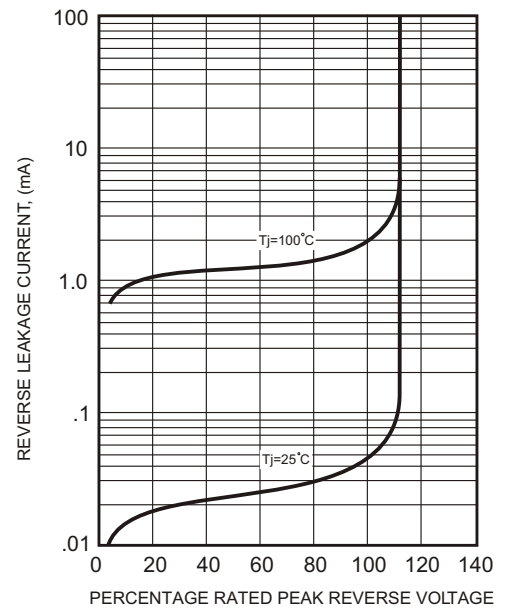


FIG.4-TYPICAL JUNCTION CAPACITANCE

