

SM5817A THRU SM5819A



1.0 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

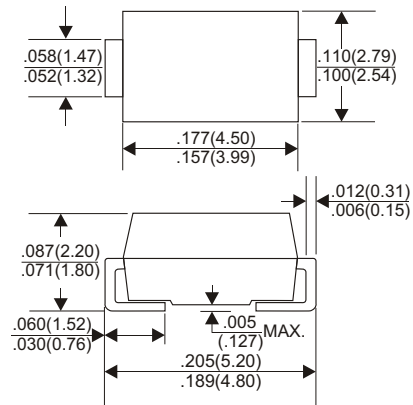
VOLTAGE RANGE

20 to 40 Volts

CURRENT

1.0 Ampere

DO-214AC(SMA)



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 | SM5817A | SM5818A | SM5819A | UNITS |
|---|------------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current at Ta=90°C | 1.0 | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 25 | | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 0.45 | 0.55 | 0.60 | V |
| Maximum DC Reverse Current Ta=25°C | 0.5 | | | mA |
| at Rated DC Blocking Voltage Ta=100°C | 10 | | | mA |
| Typical Junction Capacitance (Note1) | 110 | | | pF |
| Typical Thermal Resistance RθJA (Note 2) | 80 | | | °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 Ambient.

RATING AND CHARACTERISTIC CURVES (SM5817A THRU SM5819A)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

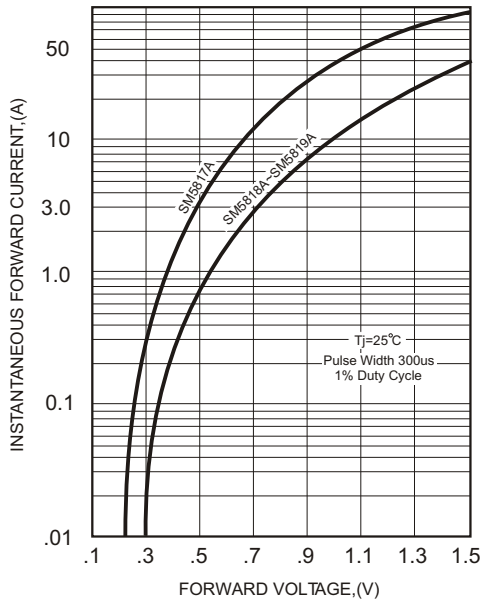


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

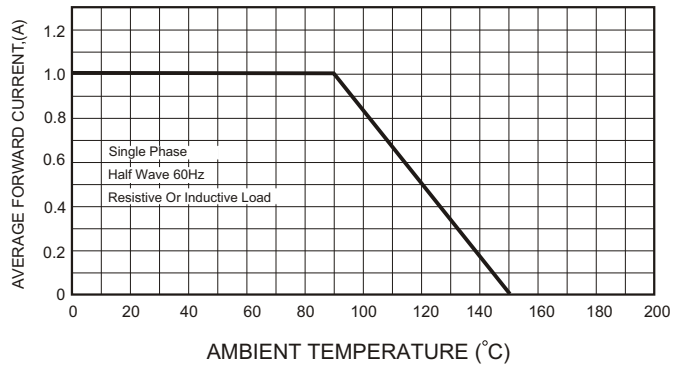


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

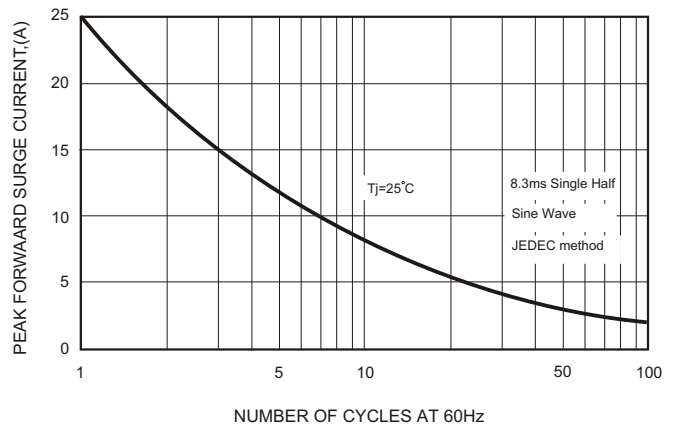


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

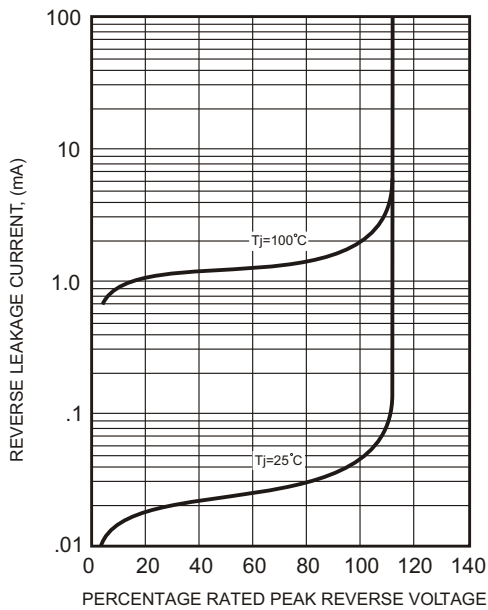


FIG.5-TYPICAL JUNCTION CAPACITANCE

