

S3A THRU S3M



3.0 AMP SURFACE MOUNT SILICON 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: 0.21 grams

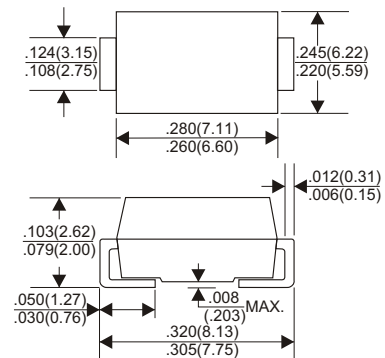
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

3.0 Ampere

DO-214AB(SMC)



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 | S3A | S3B | S3D | S3G | S3J | S3K | S3M | UNITS |
|---|------------|-----|-----|-----|-----|-----|------|-------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current At T _L =75°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 | 1.20 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | 5.0 | | | | | | | μA |
| Typical Junction Capacitance (Note1) | 60 | | | | | | | pF |
| Typical Thermal Resistance R _{JL} (Note 2) | 13 | | | | | | | °C/W |
| Operating and Storage Temperature Range T _J , 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 (S3A THRU S3M)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

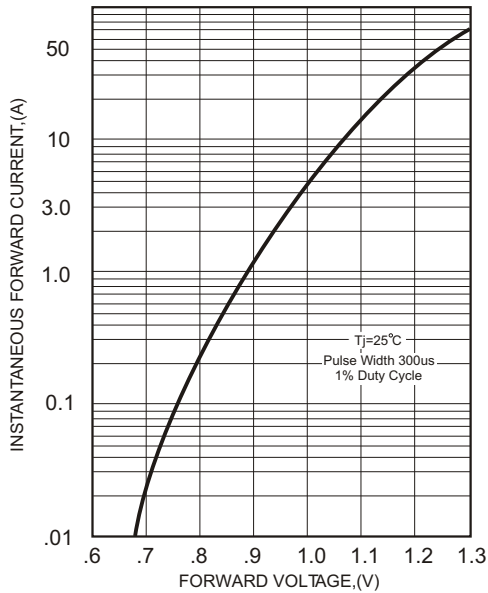


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

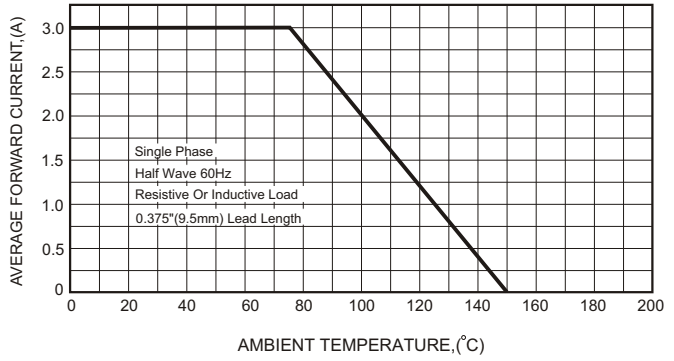


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

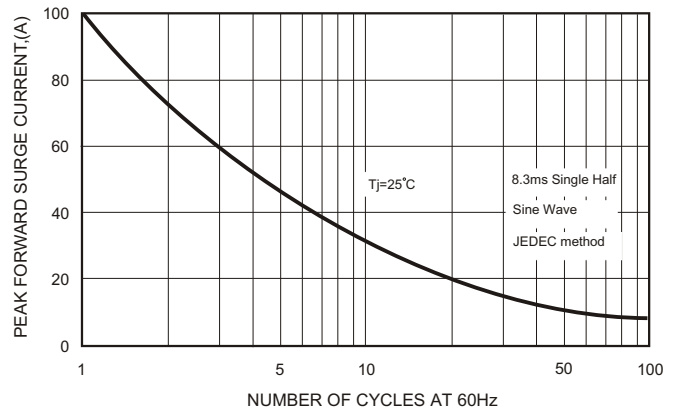


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

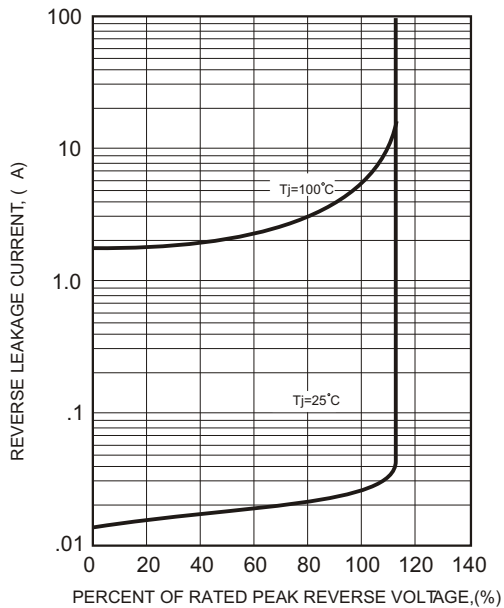


FIG.5-TYPICAL JUNCTION CAPACITANCE

