

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free



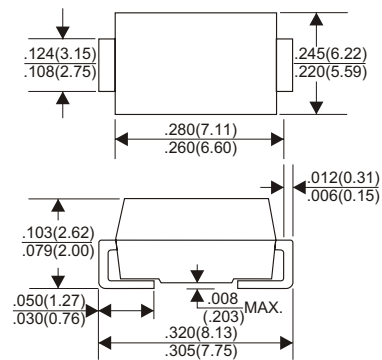
SMC

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any
- * Weight: 1.10 grams(Approximately)



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 | SM5150C | UNITS |
|--|------------|-------|
| Maximum Recurrent Peak Reverse Voltage | 150 | V |
| Working Peak Reverse Voltage | 150 | V |
| Maximum DC Blocking Voltage | 150 | V |
| Maximum Average Forward Rectified Current | | |
| See Fig. 1 | 5 | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 150 | A |
| Maximum Instantaneous Forward Voltage (I _F = 5 Amps, T _F = 25°C) | 0.87 | V |
| Maximum Instantaneous Forward Voltage (I _F = 5 Amps, T _F = 125°C) | 0.72 | V |
| Maximum DC Reverse Current T _a =25°C | 0.02 | mA |
| at Rated DC Blocking Voltage T _a =125°C | 10 | mA |
| Typical Junction Capacitance (Note 1) | 350 | pF |
| Typical Thermal Resistance R _{θJC} (Note 2) | 12 | °C/W |
| Operating Temperature Range T _J | -50 ~ +150 | °C |
| Storage Temperature Range T _{STG} | -65 ~ +175 | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 5.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (SM5150C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

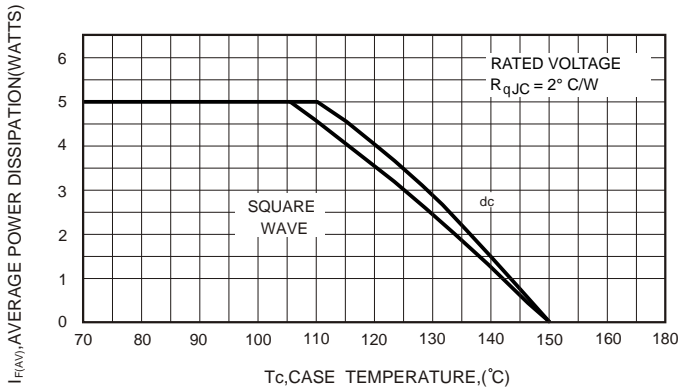


FIG.2- TYPICAL FORWARD VOLTAGE

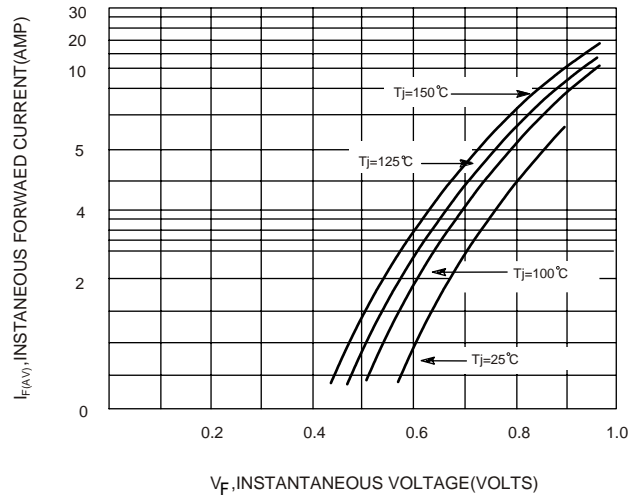


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

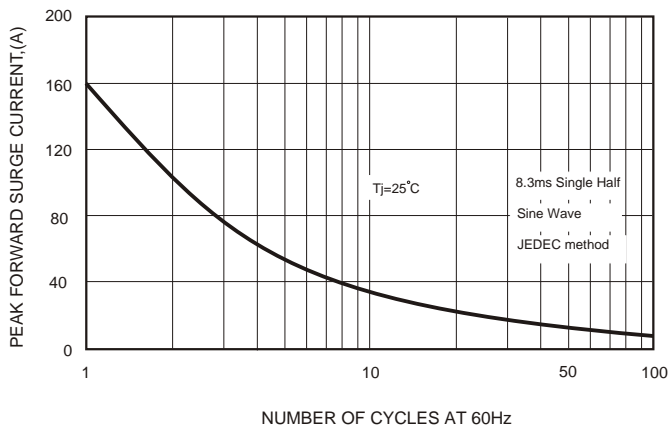


FIG.5-TYPICAL REVERSE CURRENT (PER LEG)

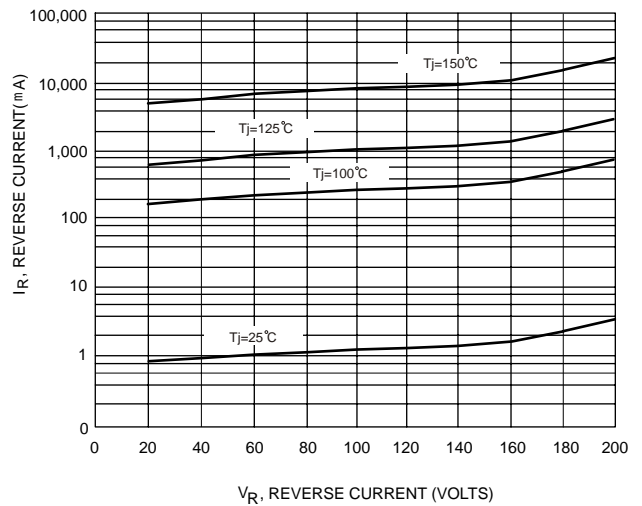


FIG.4-TYPICAL JUNCTION CAPACITANCE

