

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

**VOLTAGE RANGE**

150 to 200 Volts

**CURRENT**

3.0 Amperes



**SMC**

**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

**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%.

| P/N(MARK)   | SS315C     | SS320C | UNITS |
|---|------------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage  | 150        | 200    | V     |
| Maximum RMS Voltage   | 105        | 140    | V     |
| Maximum DC Blocking Voltage   | 150        | 200    | V     |
| Maximum Average Forward Rectified Current<br>at T <sub>L</sub> =100°C                                 | 3.0        |        | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 80         |        | A     |
| Maximum Instantaneous Forward Voltage at 3.0A   | 0.92       |        | V     |
| Maximum DC Reverse Current<br>Ta=25°C   | 0.02       |        | mA    |
| at Rated DC Blocking Voltage<br>Ta=100°C  | 2          |        | mA    |
| Typical Junction Capacitance (Note1)  | 250        |        | PF    |
| Typical Thermal Resistance R <sub>θJL</sub> (Note 2)  | 10         |        | °C/W  |
| Operating Temperature Range T <sub>J</sub>  | -65 — +175 |        | °C    |
| Storage Temperature Range T <sub>STG</sub>  | -65 — +175 |        | °C    |

**NOTES:**

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Lead Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SS315C THRU SS320C)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

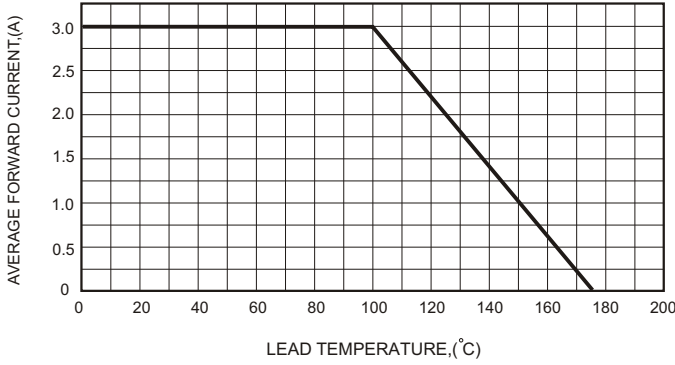


FIG.2-TYPICAL FORWARD CHARACTERISTICS

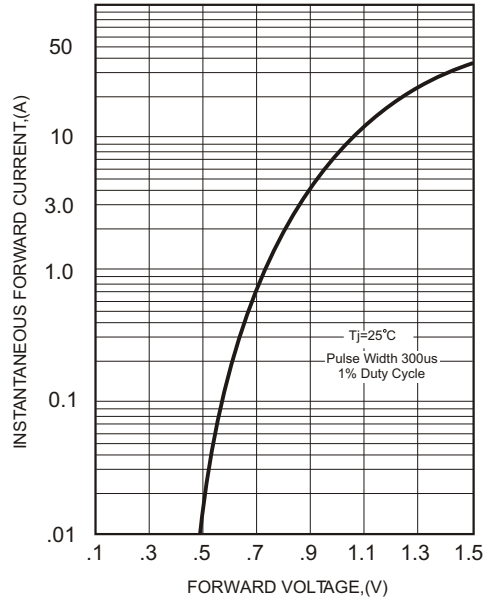


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

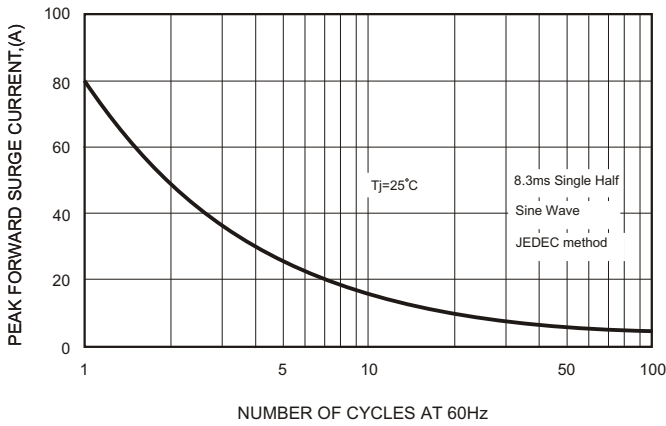


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

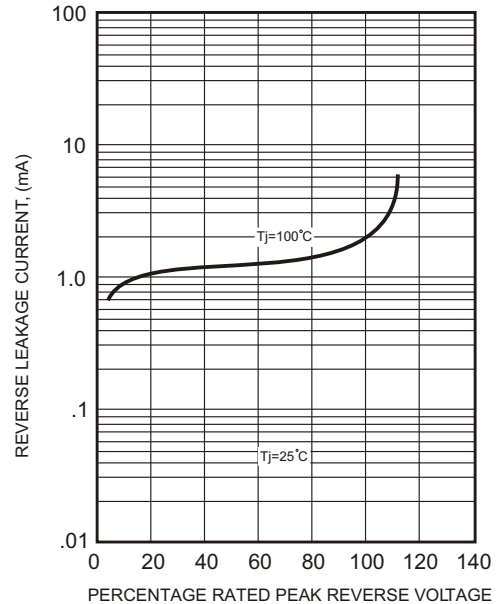
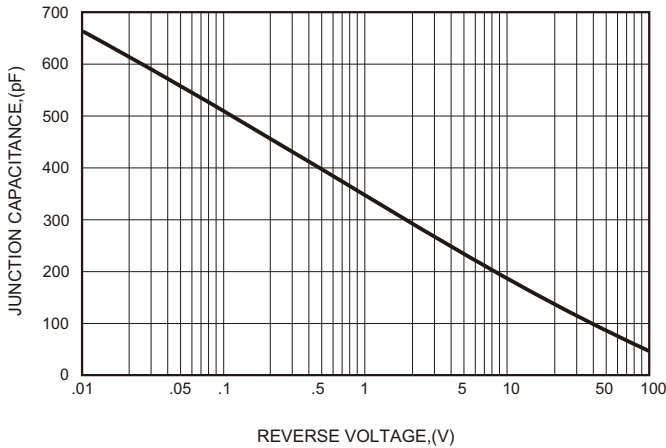
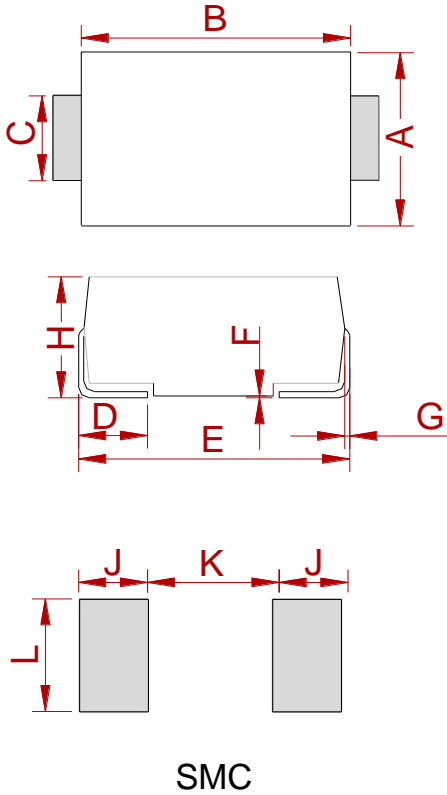


FIG.4-TYPICAL JUNCTION CAPACITANCE



**PACKAGE MECHANICAL DATA**



| Ref. | Dimensions  |       |        |       |
|------|-------------|-------|--------|-------|
|      | Millimeters |       | Inches |       |
|      | Min.        | Max.  | Min.   | Max.  |
| A    | 5.75        | 6.25  | 0.226  | 0.246 |
| B    | 6.90        | 7.40  | 0.272  | 0.291 |
| C    | 2.75        | 3.25  | 0.108  | 0.128 |
| D    | 0.95        | 1.52  | 0.037  | 0.060 |
| E    | 7.70        | 8.20  | 0.303  | 0.323 |
| F    | 0.051       | 0.203 | 0.002  | 0.008 |
| G    | 0.15        | 0.31  | 0.006  | 0.012 |
| H    | 2.15        | 2.62  | 0.085  | 0.103 |
| J    | 2.40        |       | 0.094  |       |
| K    |             | 4.20  |        | 0.165 |
| L    | 3.30        |       | 0.130  |       |

**REEL SPECIFICATION**

| P/N                | PKG | QTY  |
|--------------------|-----|------|
| SS315C THRU SS320C | SMC | 3000 |

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