

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet



SMA

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: 0.063 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%.

| TYPE NUMBER | SS52 | SS53 | SS54 | SS55 | SS56 | SS58 | SS59 | SS510 | UNITS |
|---|------------|------|------|------|------|------|------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V |
| Maximum Average Forward Rectified Current At T _L =100°C | 5.0 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 120 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 5.0A | 0.55 | | 0.70 | | | 0.85 | | | V |
| Maximum DC Reverse Current Ta=25°C | 0.1 | | | 0.02 | | | | | mA |
| at Rated DC Blocking Voltage Ta=100°C | 5 | | | 2 | | | | | mA |
| Typical Junction Capacitance (Note1) | 380 | | | | | | | | pF |
| Typical Thermal Resistance R _{JL} (Note 2) | 10 | | | | | | | | °C/W |
| Operating Temperature Range T _J | -65 — +150 | | | | | | | | °C |
| Storage Temperature Range 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 (SS52 THRU SS510)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

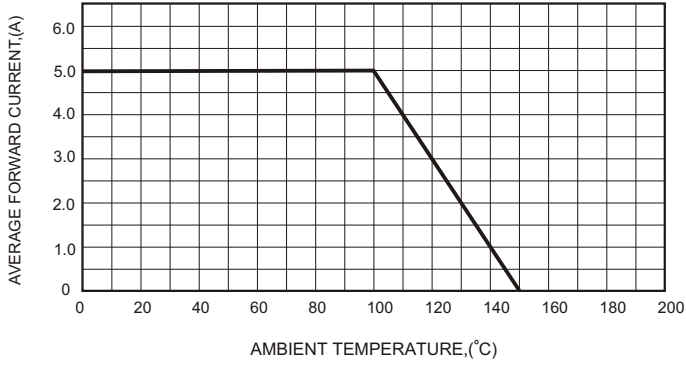


FIG.2-TYPICAL FORWARD CHARACTERISTICS

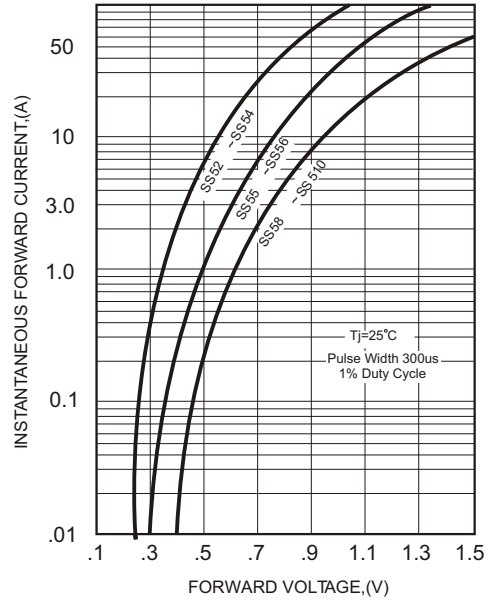


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

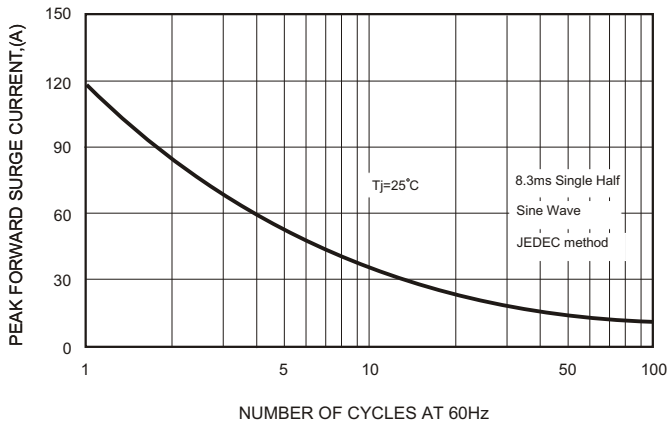


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

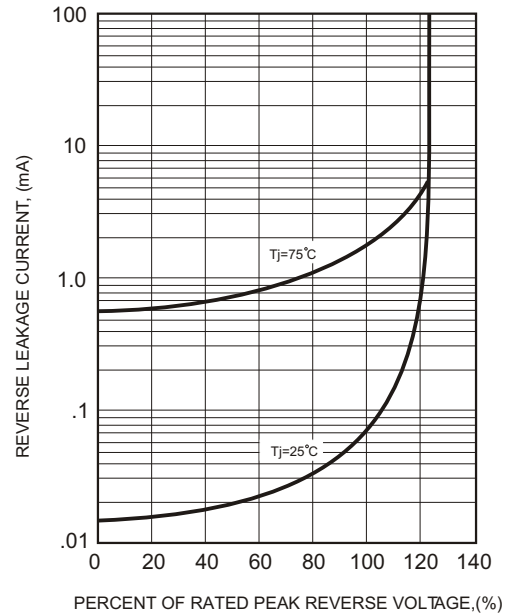
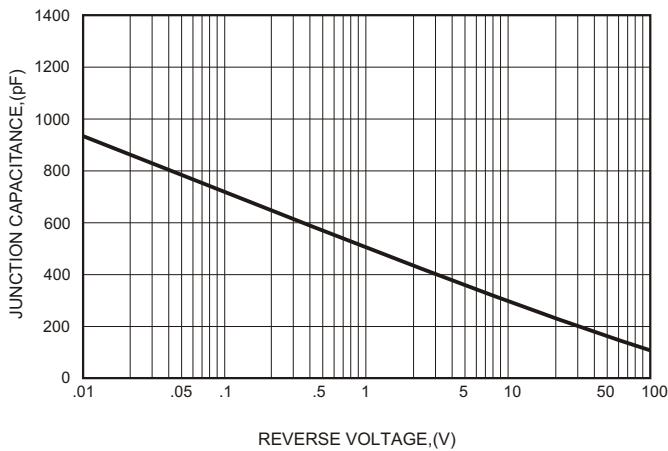
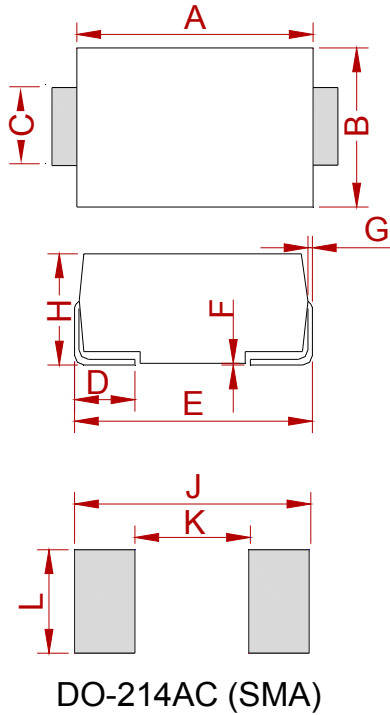


FIG.4-TYPICAL JUNCTION CAPACITANCE



PACKAGE MECHANICAL DATA



| Ref. | Dimensions | | | |
|------|-------------|-------|--------|-------|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| A | 4.25 | 4.65 | 0.167 | 0.183 |
| B | 2.50 | 2.90 | 0.098 | 0.114 |
| C | 1.35 | 1.65 | 0.053 | 0.065 |
| D | 0.76 | 1.52 | 0.030 | 0.060 |
| E | 4.93 | 5.28 | 0.194 | 0.208 |
| F | 0.051 | 0.203 | 0.002 | 0.008 |
| G | 0.15 | 0.31 | 0.006 | 0.012 |
| H | 1.98 | 2.41 | 0.078 | 0.095 |
| J | 6.50 | | 0.256 | |
| K | | 2.30 | | 0.090 |
| L | 1.70 | | 0.067 | |

REEL SPECIFICATION

| P/N | PKG | QTY |
|-----------------|-----|------|
| SS52 THRU SS510 | SMA | 2000 |

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