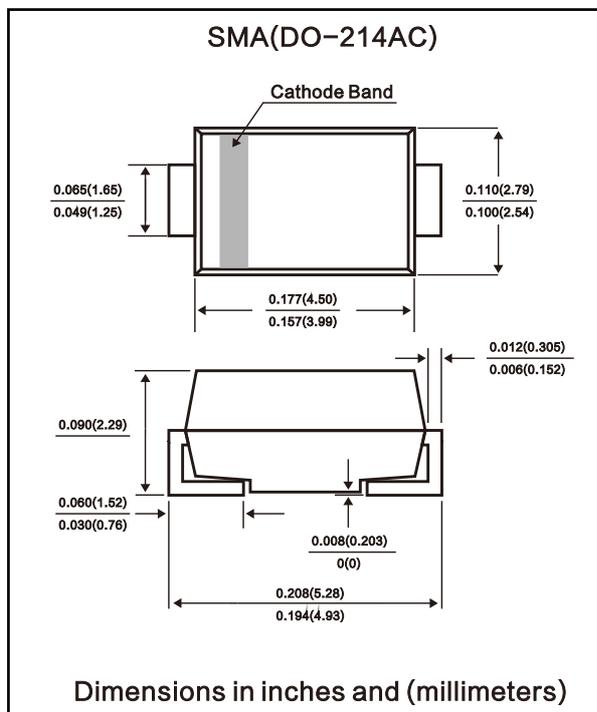


## Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C / 10 seconds at terminals

## Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Pure tin plated, lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 16mm tape per EIA STD RS-481
- ✧ Weight: 0.1 gram



## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number   | Symbol          | SS 52       | SS 53 | SS 54 | SS 55 | SS 56       | SS 59 | SS 510 | SS 515 | Units |
|---|-----------------|-------------|-------|-------|-------|-------------|-------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 20          | 30    | 40    | 50    | 60          | 90    | 100    | 150    | V     |
| Maximum RMS Voltage   | $V_{RMS}$       | 14          | 21    | 28    | 35    | 42          | 63    | 70     | 105    | V     |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 20          | 30    | 40    | 50    | 60          | 90    | 100    | 150    | V     |
| Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)   | $I_{(AV)}$      | 5.0         |       |       |       |             |       |        |        | A     |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)                        | $I_{FSM}$       | 120         |       |       |       |             |       |        |        | A     |
| Maximum Instantaneous Forward Voltage @ 5.0A  | $V_F$           | 0.55        |       | 0.75  |       | 0.85        |       | 0.95   |        | V     |
| Maximum DC Reverse Current (Note 1)<br>@ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage<br>@ $T_A=125^\circ\text{C}$ | $I_R$           | 0.5         |       |       |       | 0.3         |       |        |        | mA    |
|   |                 | 20          |       | 10    |       | 5.0         |       |        |        | mA    |
| Typical Thermal Resistance ( Note 2 )   | $R_{\theta JL}$ | 17          |       |       |       |             |       |        |        | °C/W  |
|   | $R_{\theta JA}$ | 55          |       |       |       |             |       |        |        |       |
| Operating Temperature Range   | $T_J$           | -55 to +125 |       |       |       | -55 to +150 |       |        |        | °C    |
| Storage Temperature Range   | $T_{STG}$       | -55 to +150 |       |       |       |             |       |        |        | °C    |

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
2. Measured on P.C.Board with 0.6" x 0.6"(16mm x 16mm) Copper Pad Areas.

**RATINGS AND CHARACTERISTIC CURVES ( SS52 THRU SS515)**
