

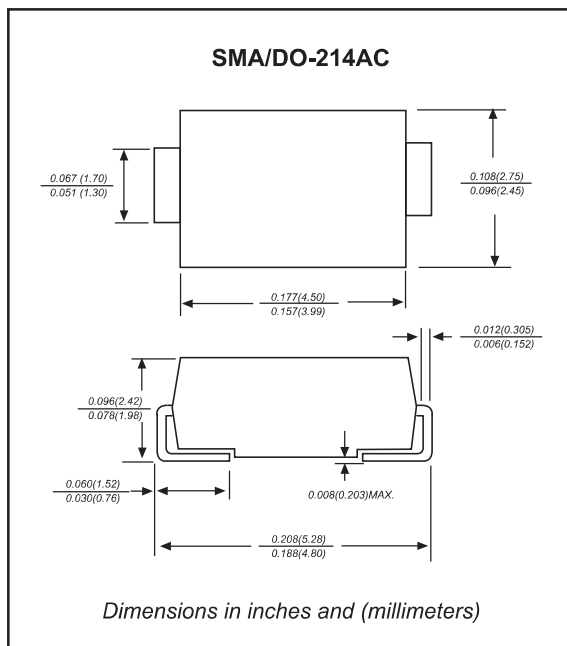
### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals
- ◆ Compliant to RoHS Directive 2011/65/EU
- ◆ Compliant to Halogen-free

### Mechanical data

- ◆ **Case:** JEDEC DO-214AC molded plastic body
- ◆ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER                  | CONDITIONS                                    | Symbol          | MIN. | TYP. | MAX. | UNIT               |
|----------------------------|-----------------------------------------------|-----------------|------|------|------|--------------------|
| Forward rectified current  | See Fig.2                                     | $I_O$           |      |      | 1.0  | A                  |
| Forward surge current      | 8.3ms single half sine-wave (JEDEC methode)   | $I_{FSM}$       |      |      | 30   | A                  |
| Reverse current            | $V_R = V_{RRM} \quad T_A = 25^\circ\text{C}$  | $I_R$           |      |      | 0.5  | mA                 |
|                            | $V_R = V_{RRM} \quad T_A = 100^\circ\text{C}$ |                 |      |      | 10   |                    |
| Thermal resistance         | Junction to ambient<br>NOTE 1                 | $R_{\theta JA}$ |      | 88   |      | $^\circ\text{C/W}$ |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage      | $C_J$           |      | 110  |      | pF                 |
| Storage temperature        |                                               | $T_{STG}$       | -65  |      | +150 | $^\circ\text{C}$   |

**Note:** 1.P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

| SYMBOLS | V <sub>RRM</sub> <sup>*1</sup><br>(V) | V <sub>RMS</sub> <sup>*2</sup><br>(V) | V <sub>R</sub> <sup>*3</sup><br>(V) | V <sub>F</sub> <sup>*4</sup><br>(V) | Operating temperature<br>T <sub>J</sub> , (°C) |
|---------|---------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|------------------------------------------------|
| SS12-A  | 20                                    | 14                                    | 20                                  | 0.55                                | -55 to +125                                    |
| SS13-A  | 30                                    | 21                                    | 30                                  |                                     |                                                |
| SS14-A  | 40                                    | 28                                    | 40                                  |                                     |                                                |
| SS15-A  | 50                                    | 35                                    | 50                                  | 0.70                                | -55 to +150                                    |
| SS16-A  | 60                                    | 42                                    | 60                                  |                                     |                                                |
| SS18-A  | 80                                    | 56                                    | 80                                  | 0.85                                |                                                |
| SS110-A | 100                                   | 70                                    | 100                                 |                                     |                                                |
| SS115-A | 150                                   | 105                                   | 150                                 | 0.92                                |                                                |
| SS120-A | 200                                   | 140                                   | 200                                 |                                     |                                                |

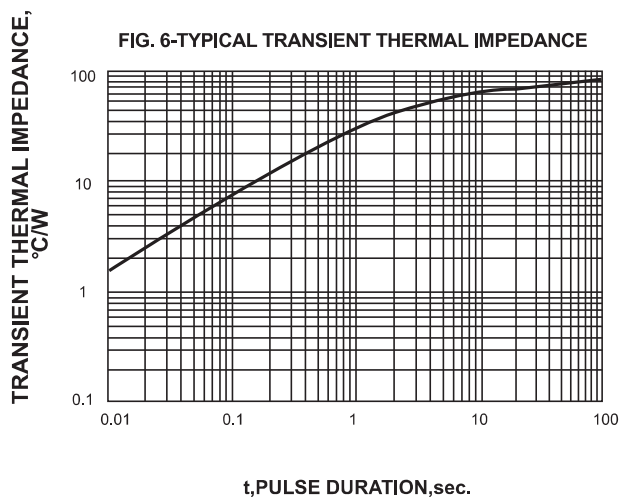
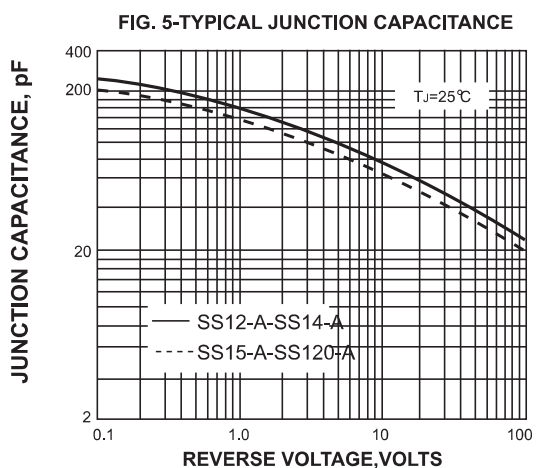
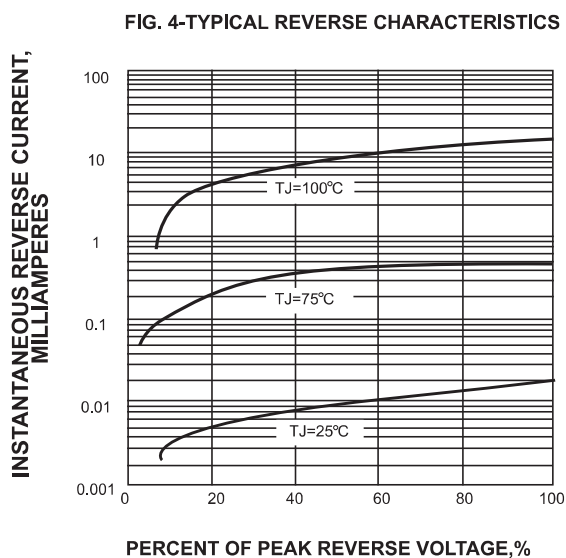
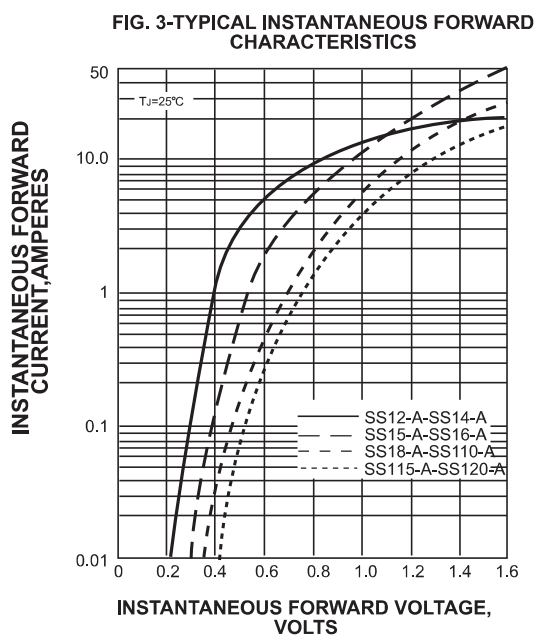
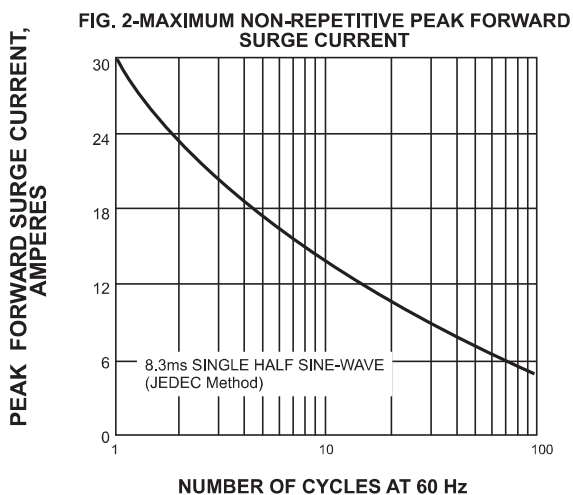
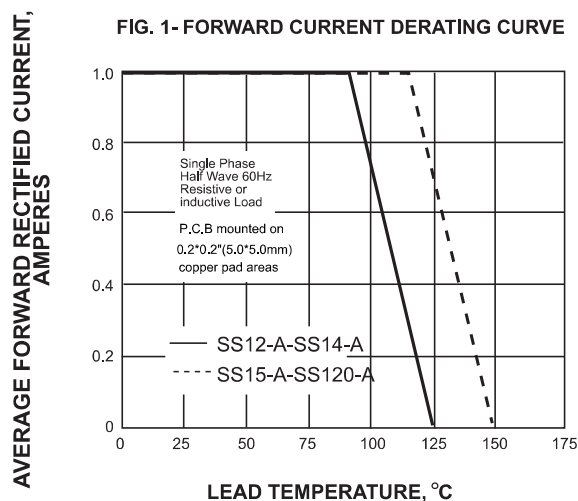
\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=1.0A$

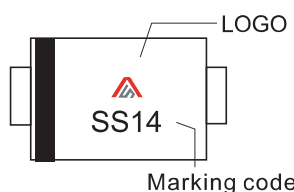
### Rating and characteristic curves



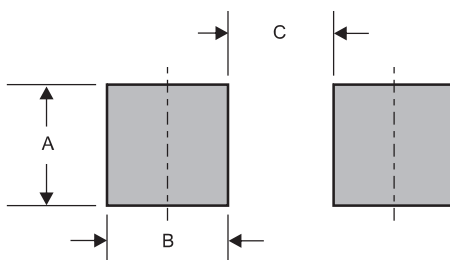
### Pinning information

| Pin                        | Simplified outline                                                                | Symbol                                                                              |
|----------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Pin1 cathode<br>Pin2 anode |  |  |

### Marking

| Type number | Marking code | Example                                                                             |
|-------------|--------------|-------------------------------------------------------------------------------------|
| SS12-A      | SS12         |  |
| SS13-A      | SS13         |                                                                                     |
| SS14-A      | SS14         |                                                                                     |
| SS15-A      | SS15         |                                                                                     |
| SS16-A      | SS16         |                                                                                     |
| SS18-A      | SS18         |                                                                                     |
| SS110-A     | SS110        |                                                                                     |
| SS115-A     | SS115        |                                                                                     |
| SS120-A     | SS120        |                                                                                     |

### Suggested solder pad layout



Dimensions in inches and (millimeters)

| PACKAGE | A            | B            | C            |
|---------|--------------|--------------|--------------|
| SMA     | 0.110 (2.80) | 0.063 (1.60) | 0.087 (2.20) |