

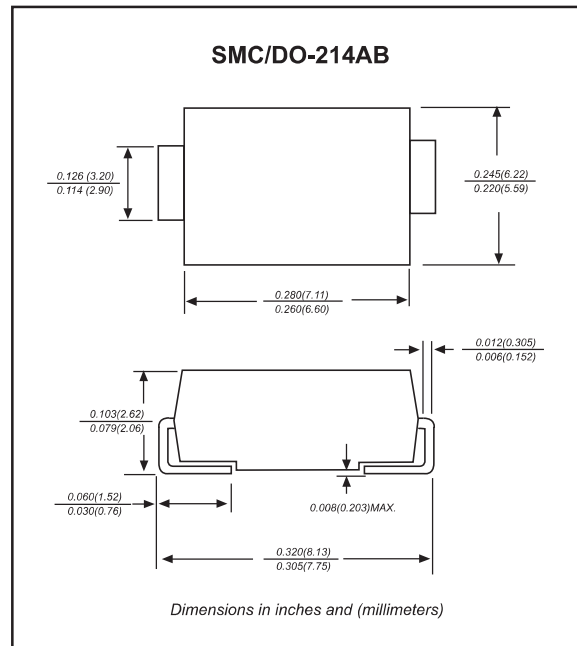
Features

- ▶ 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
- ▶ Suffix "-H" indicates Halogen-free part, ex. SS54-C-H

Mechanical data

- ▶ **Case:** JEDEC DO-214AB 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 | | | 5.0 | A |
| Forward surge current | 8.3ms single half sine-wave (JEDEC methode) | I_{FSM} | | | 120 | 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 NOTE 1 | $R_{\theta JA}$ | | 50 | | $^\circ\text{C}/\text{W}$ |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage | C_J | | 200 | | 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_{RM}^{*1} (V) | V_{RMS}^{*2} (V) | V_R^{*3} (V) | V_F^{*4} (V) | Operating temperature T_J ($^\circ\text{C}$) |
|---------|----------------------|-----------------------|-------------------|-------------------|---|
| SS52-C | 20 | 14 | 20 | 0.55 | -55 to +125 |
| SS53-C | 30 | 21 | 30 | | |
| SS54-C | 40 | 28 | 40 | | |
| SS55-C | 50 | 35 | 50 | 0.70 | -55 to +150 |
| SS56-C | 60 | 42 | 60 | | |
| SS58-C | 80 | 56 | 80 | 0.85 | |
| SS510-C | 100 | 70 | 100 | | |
| SS515-C | 150 | 105 | 150 | 0.92 | |
| SS520-C | 200 | 140 | 200 | | |

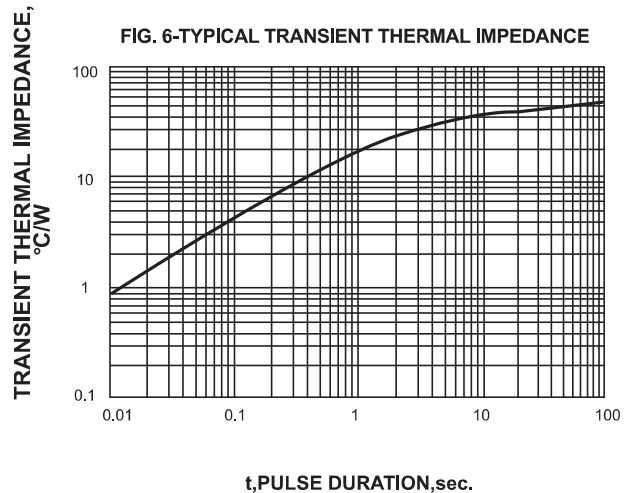
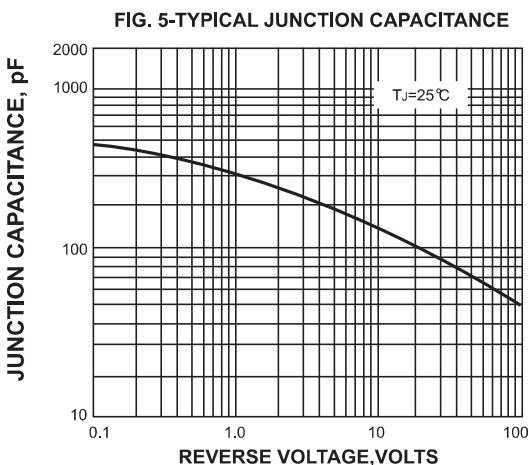
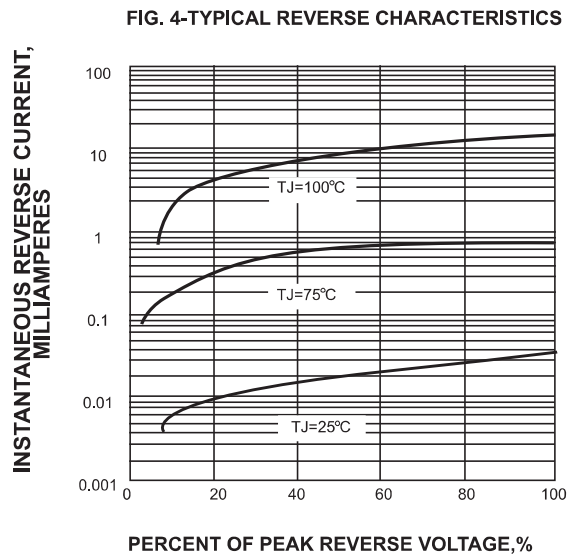
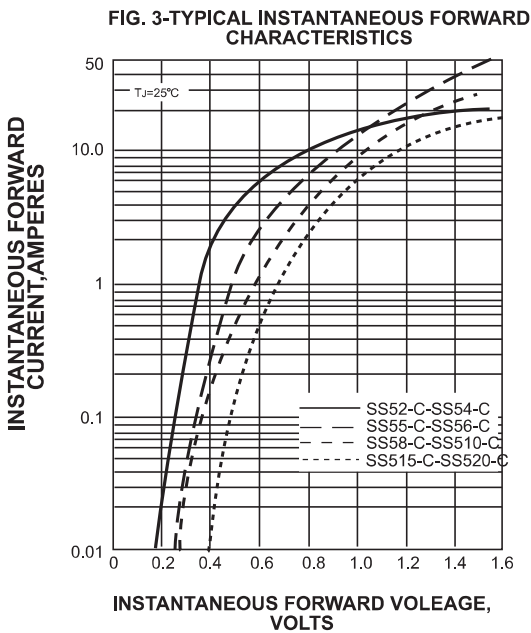
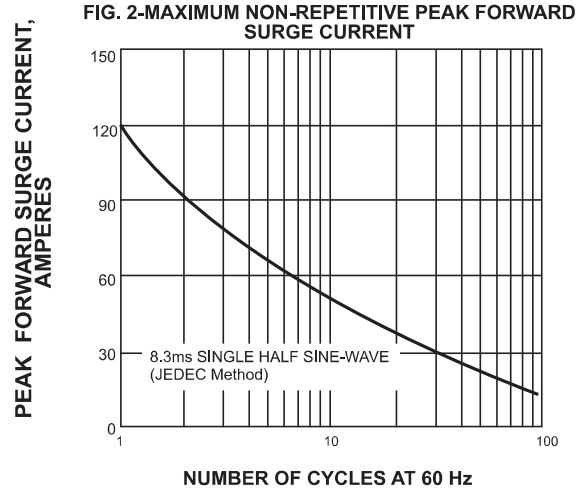
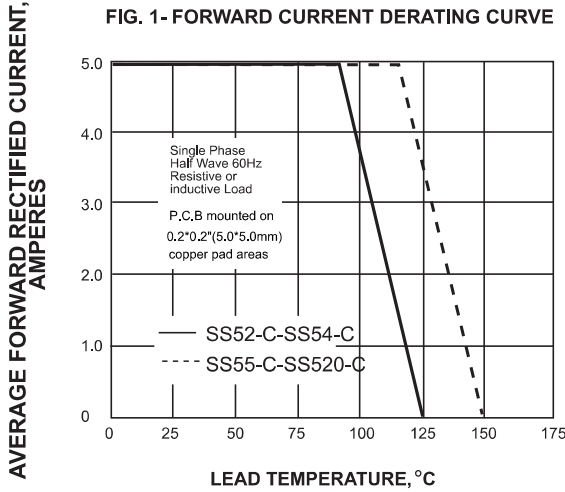
*1 Repetitive peak reverse voltage

*2 RMS voltage



*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=5.0\text{A}$

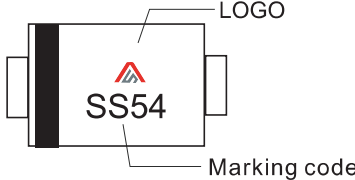
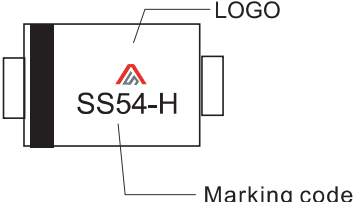
Rating and characteristic curves



Pinning information

| Pin | Simplified outline | Symbol |
|----------------------------|--|---|
| Pin1 cathode Pin2 anode |  |  |

Marking

| Type number | Marking code | Example | |
|-------------|--------------|--|--|
| SS52-C | SS52 | 1. For Halogen Device  | 2. For Halogen-free Device "H" indicate Halogen-Free.  |
| SS53-C | SS53 | | |
| SS54-C | SS54 | | |
| SS55-C | SS55 | | |
| SS56-C | SS56 | | |
| SS58-C | SS58 | | |
| SS510-C | SS510 | | |
| SS515-C | SS515 | | |
| SS520-C | SS520 | | |

Suggested solder pad layout



Dimensions in inches and (millimeters)

| PACKAGE | A | B | C |
|---------|--------------|--------------|-------------|
| SMC | 0.132 (3.30) | 0.100 (2.50) | 0.176(4.40) |