

SS32 THRU SS320

3.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

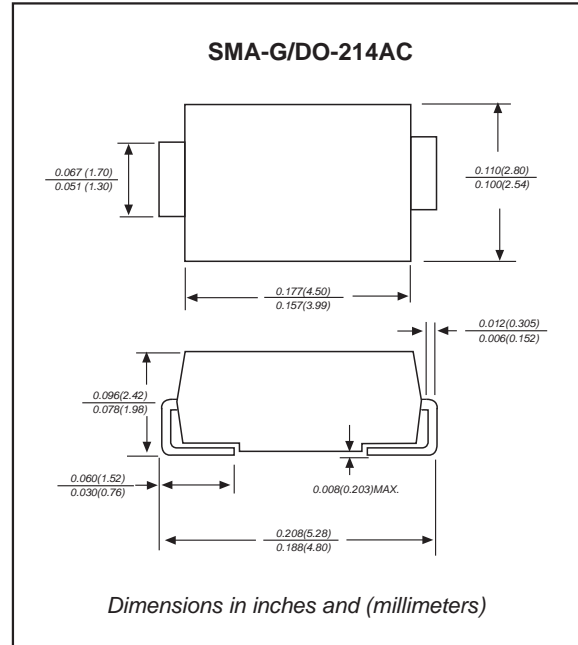
Features

- ▶ 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

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
- ▶ **Weight:** 0.002 ounce, 0.07 grams

Package outline



Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

| PARAMETER | CONDITIONS | Symbol | MIN. | TYP. | MAX. | UNIT |
|----------------------------|--|------------------|------|------|------|------|
| Forward rectified current | See Fig.2 | I _O | | | 3.0 | A |
| Forward surge current | 8.3ms single half sine-wave (JEDEC methode) | I _{FSM} | | | 80 | A |
| Reverse current | V _R = V _{RRM} T _A = 25°C | I _R | | | 0.5 | mA |
| | V _R = V _{RRM} T _A = 100°C | | | | 10 | |
| Thermal resistance | Junction to ambient NOTE 1 | R _{θJA} | | 55 | | °C/W |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage | C _J | | 500 | | pF |
| Storage temperature | | T _{STG} | -65 | | +150 | °C |

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

| SYMBOLS | V _{RRM} ^{*1} (V) | V _{RMS} ^{*2} (V) | V _R ^{*3} (V) | V _F ^{*4} (V) | Operating temperature T _J (°C) |
|---------|---------------------------------------|---------------------------------------|-------------------------------------|-------------------------------------|--|
| SS32 | 20 | 14 | 20 | 0.45 | -55 to +125 |
| SS33 | 30 | 21 | 30 | 0.55 | |
| SS34 | 40 | 28 | 40 | | |
| SS345 | 45 | 31.5 | 45 | | |
| SS35 | 50 | 35 | 50 | 0.70 | -55 to +150 |
| SS36 | 60 | 42 | 60 | | |
| SS38 | 80 | 56 | 80 | 0.85 | |
| SS310 | 100 | 70 | 100 | | |
| SS315 | 150 | 105 | 150 | | |
| SS320 | 200 | 140 | 200 | | |

*1 Repetitive peak reverse voltage

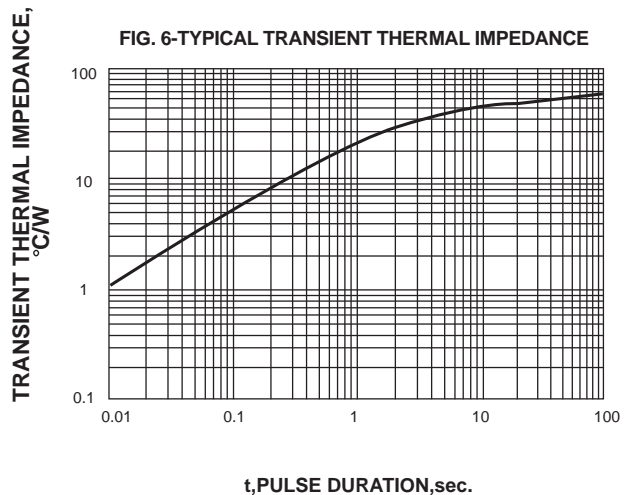
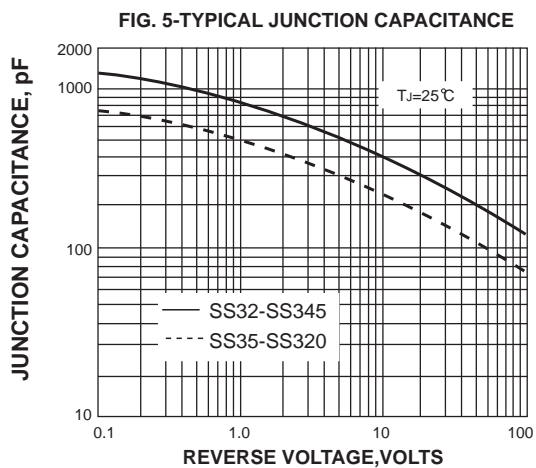
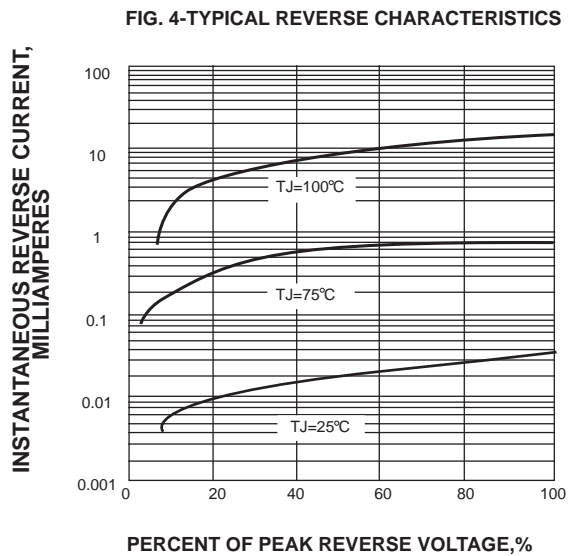
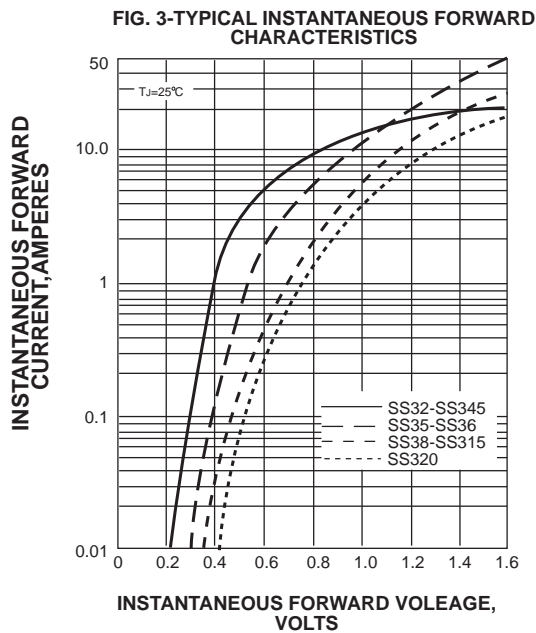
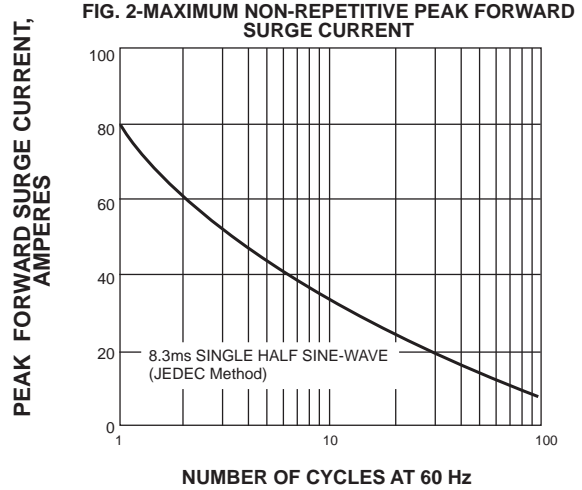
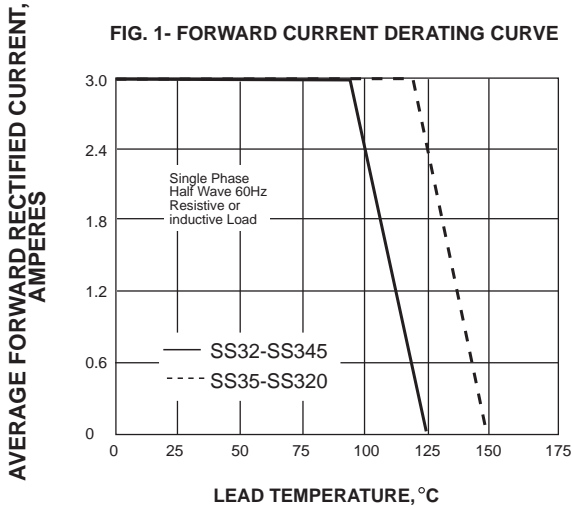
*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@I_F=3.0A



SS32 THRU SS320

Rating and characteristic curves (SS32 THRU SS320)



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Pinning information

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

Marking

| Type number | Marking code |
|-------------|--------------|
| SS32 | SS32 |
| SS33 | SS33 |
| SS34 | SS34 |
| SS345 | SS345 |
| SS35 | SS35 |
| SS36 | SS36 |
| SS38 | SS38 |
| SS310 | SS310 |
| SS315 | SS315 |
| SS320 | SS320 |

Suggested solder pad layout



Dimensions in inches and (millimeters)

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