



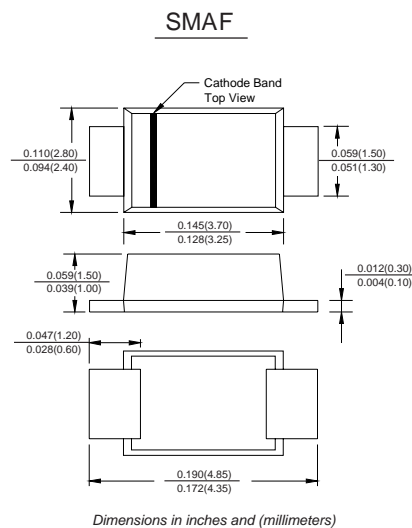
FEATURES

- ✧ Schottky barrier rectifier
- ✧ Guarding protection
- ✧ Low forward voltage
- ✧ Reverse energy tested
- ✧ High current capability
- ✧ Extremely low thermal resistance

MECHANICAL DATA

- ✧ Case: SMAFL molded plastic body
- ✧ Polarity: Color band denotes cathode end
- ✧ Mounting position: ANY

Maximum Ratings (@TA = 25°C unless otherwise specified)



| Characteristic | Symbol | SS12 AF | SS13 AF | SS14 AF | SS15 AF | SS16 AF | SS18 AF | SS19 AF | SS11 FAF | SS115 AF | SS120 AF | UNITS |
|---|-------------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|-------|
| Device marking code | | SS12F | SS13F | SS14F | SS15F | SS16F | SS18F | SS19F | SS110 | SS115F | SS120F | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum RMS voltage | V_{RWS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | 105 | 150 | V |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum average forward rectified | $I_{F(AV)}$ | 1.0 | | | | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave | I_{FSM} | 40 | | | | | | | | | | A |

Thermal Characteristics

| Characteristic | Symbol | SS12 AF | SS13 AF | SS14 AF | SS15 AF | SS16 AF | SS18 AF | SS19 AF | SS110 AF | SS115 AF | SS120 AF | UNITS |
|-----------------------------|-----------------|---------------|---------|---------|---------|---------|-------------|---------|----------|----------|----------|-------|
| Maximum thermal resistance | $R_{\theta JL}$ | 28 | | | | | | | | | | °C/W |
| Operating temperature range | T_J | -55 ---- +150 | | | | | -55 to +175 | | | | | °C |
| Storage temperature range | T_{STG} | -55 ---- +150 | | | | | -55 to +175 | | | | | °C |

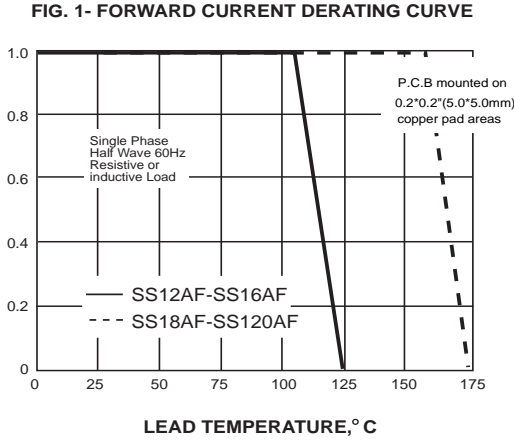
Electrical Characteristics

 (@TA = 25°C unless otherwise specified)

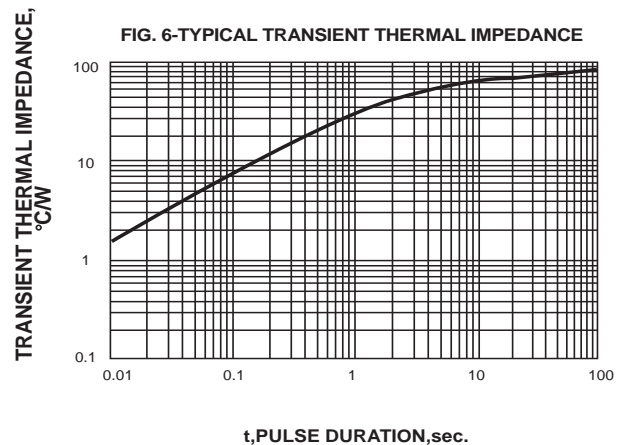
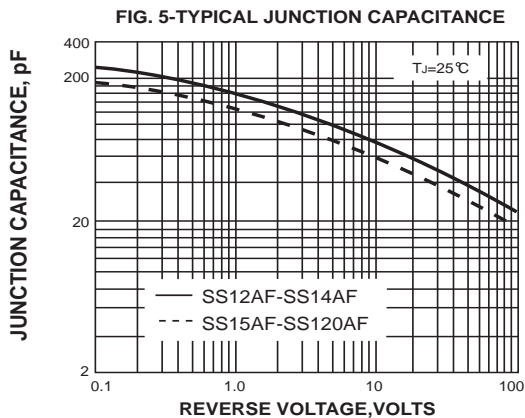
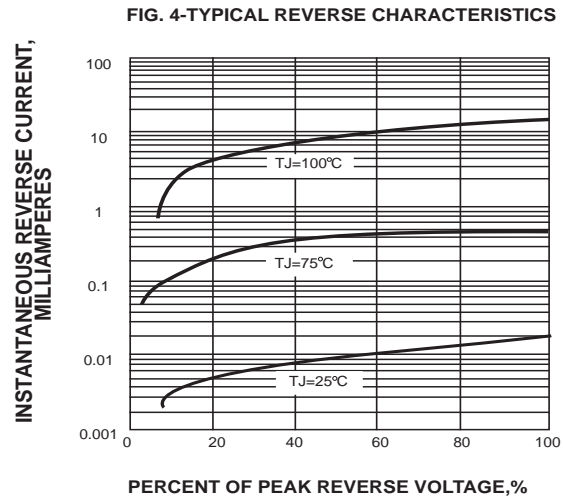
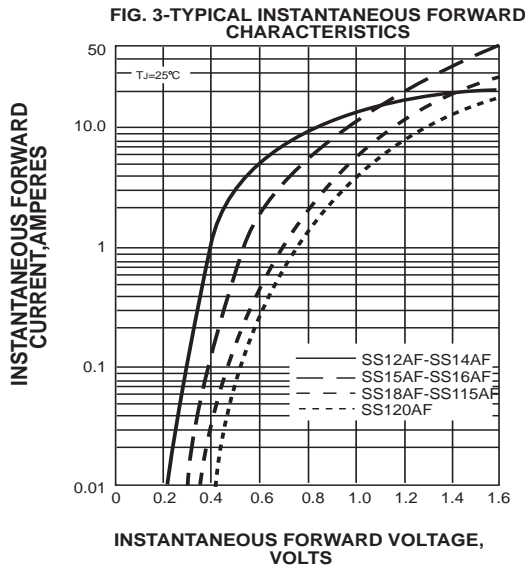
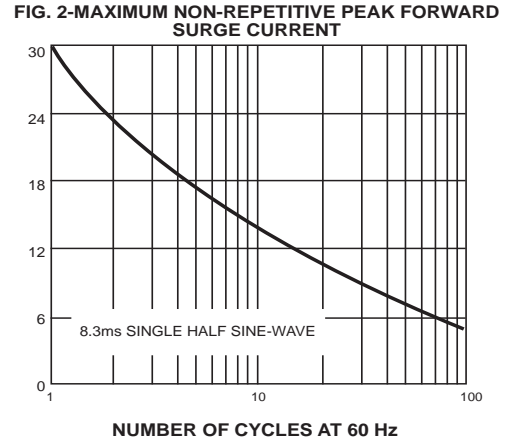
| Characteristic | Symbol | SS12 AF | SS13 AF | SS14 AF | SS15 AF | SS16 AF | SS18 AF | SS19 AF | SS110 AF | SS115 AF | SS120 AF | UNITS |
|---|--------|---------|---------|---------|---------|---------|---------|---------|----------|----------|----------|-------|
| Maximum instantaneous forward voltage at $I_{FM}=1.0A$ | V_F | 0.55 | | | 0.70 | | 0.85 | | | 0.95 | | V |
| Maximum DC reverse current $T_J=25^\circ C$ at rated DC blocking voltage $T_J=125^\circ C$ | I_R | 0.2 | | | 0.5 | | | 5.0 | | | m A | |
| | | 6.0 | | | 5.0 | | | | | | | |

Ratings and Characteristics Curve(TA=25°C unless otherwise noted)

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



PEAK FORWARD SURGE CURRENT, AMPERES



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMAF | 3000/REEL | 80000 | 36X30.6X31 | 12.00 | 11.00 |