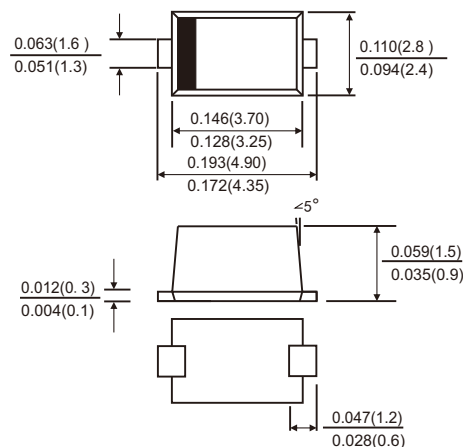


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



SMAF



MECHANICAL DATA

- Case: SMAF molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

| | Symbols | SS 12S | SS 13S | SS 14S | SS 16S | SS 110S | SS 115S | SS 120S | Volts |
|--|-----------------------|------------|--------|--------|--------|---------|---------|---------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 60 | 100 | 150 | 200 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 42 | 71 | 105 | 140 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 60 | 100 | 150 | 200 | Volts |
| Maximum average forward rectified current (See Fig. 1) | I(AV) | 1.0 | | | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 40.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0 A(note 1) | V _F | 0.55 | | 0.75 | 0.85 | 0.90 | 0.95 | | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | T _A =25°C | 100 | | | | 20 | | | μA |
| | T _A =100°C | 5.0 | | | | - | | | mA |
| | T _A =125°C | - | | | | 3.0 | | | |
| Typical thermal resistance (Note 2) | R _{θJA} | 50.0 | | | | | | | °C/W |
| Operating junction temperature range | T _J | -55 to+150 | | | | | | | °C |
| Storage temperature range | T _{STG} | -55 to+150 | | | | | | | °C |

Notes: 1.Pulse test: 300μs pulse width,1% duty cycle

2. P.C.B. mounted with 0.2 X 0.2"(5.0 X 5.0mm)copper pad areas

RATINGS AND CHARACTERISTIC CURVES SS12S THRU SS120S

FIG.1-FORWARD CURRENT DERATING CURVE

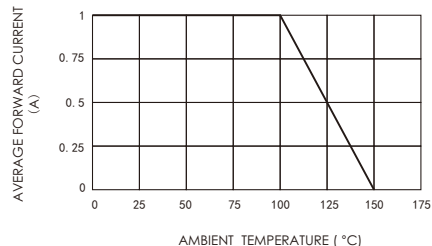


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

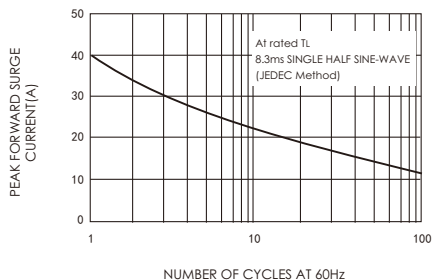


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

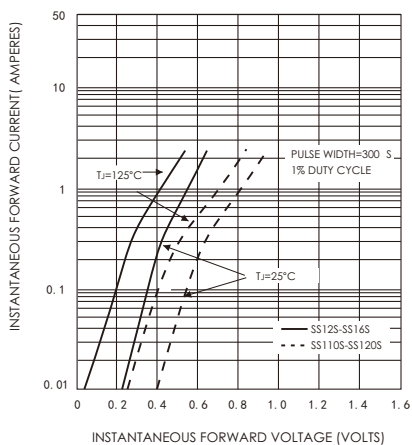


FIG.4-TYPICAL REVERSE CHARACTERISTICS

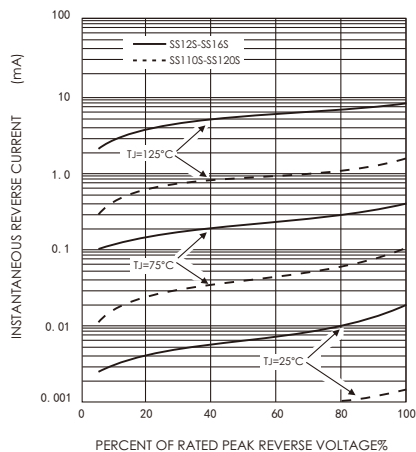


FIG.5-TYPICAL JUNCTION CAPACITANCE

