

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Stable,High temperature,Glass passivated junction
- -V suffix for Automotive and other applications requiring unique site and control change requirements
- PPAP capable
- AEC-Q101 qualified
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



AEC-Q101 Qualified

MECHANICAL DATA

- Case: SMAF molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.028 gram



CASE: SMAF

MARKING:

JF-Logo
W-Work week
M-Work month
Y-Work year
S-Assembly location
S2JS: Device code
V: for automobile

TYPICAL APPLICATIONS

For use in high voltage rectifier,polarity protection,clamp applications

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

| Parameters | Symbol | Value | Unit |
|--|-------------|------------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 600 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 2.0 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL) | I_{FSM} | 65 | A |
| Operating junction temperature range | T_J | -55 to+150 | °C |
| Storage temperature range | T_{stg} | -55 to+150 | °C |

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

| Parameter | Test Conditions | | Symbol | Min. | Typ. | Max. | Unit |
|---------------------------------------|----------------------|-----------------------|-----------------------------------|------|------|------|------|
| Breakdown voltage Blocking voltage | I _r =10μA | T _j =25°C | V _{BR} V _R | 600 | - | - | V |
| Instaneous forward voltage | I _f =2.0A | T _j =25°C | V _F ¹⁾ | - | 0.92 | 0.95 | V |
| | | T _j =100°C | | - | 0.84 | - | |
| | | T _j =125°C | | - | 0.81 | - | |
| Reverse current | V _R =600V | T _j =25°C | I _R ²⁾ | - | - | 2 | μA |
| | | T _j =100°C | | - | - | 10 | |
| | | T _j =125°C | | - | - | 100 | |
| Junction capacitance | 4V,1MHz | | C _J | - | 23 | - | pF |

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

2.Pulse test: pulse width ≤ 40ms

THERMAL CHARACTERISTICS

| Parameter | Symbol | SMAF | Unit |
|--|------------------|------|------|
| Typical thermal resistance ³⁾ | R _{θJA} | 75 | °C/W |
| | R _{θJL} | 27 | |

3. P.C.B. mounted with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

AVAILABLE PACK INFORMATION

| Product code | Pack | Reel Size (mm) | Quantity (pcs/reel) | Box Size L×W×H (mm) | Quantity (reel/box) | Carton Size L×W×H (mm) | Quantity (box/carton) | Quantity(carton) (K) |
|--------------|------|----------------|---------------------|---------------------|---------------------|------------------------|-----------------------|----------------------|
| S2JS-V-SMAF | T/R | Φ178 | 3000 | 180×180×105 | 6 | 550×200×205 | 5 | 90 |

RATINGS AND CHARACTERISTIC OF S2JS-V

FIG.1-FORWARD CURRENT DERATING CURVE

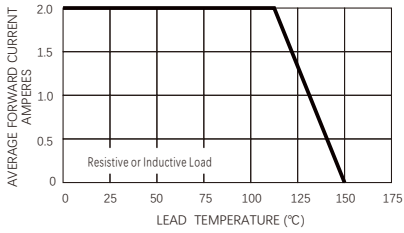


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

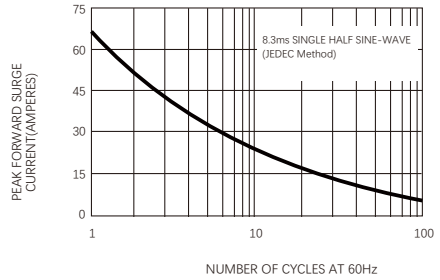


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

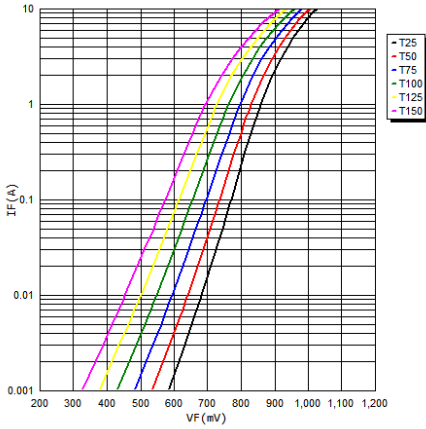


FIG.4-TYPICAL REVERSE CHARACTERISTICS

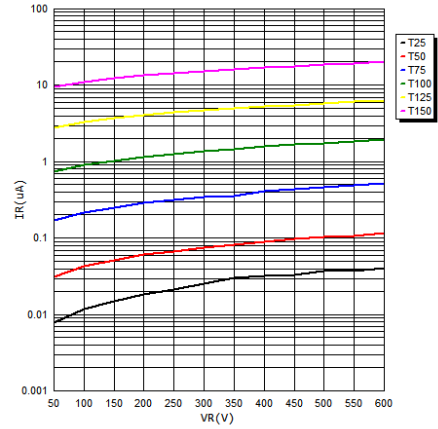
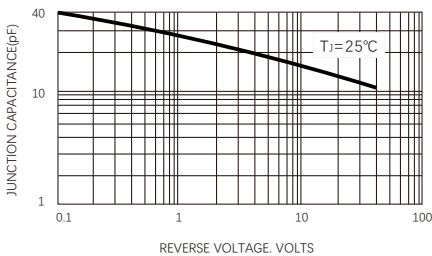
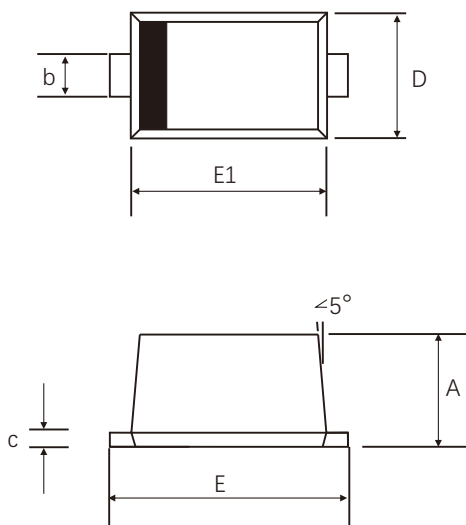


FIG.5-TYPICAL JUNCTION CAPACITANCE

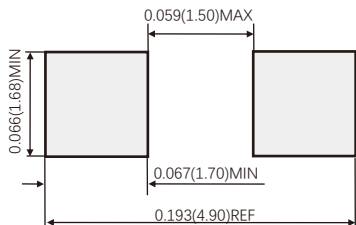


SMAF



| Sym | Value(millimeters) | | |
|-----|--------------------|-----|------|
| | Min | Typ | Max |
| A | 0.90 | - | 1.50 |
| b | 1.30 | - | 1.60 |
| c | 0.10 | - | 0.30 |
| D | 2.40 | - | 2.80 |
| E | 4.35 | - | 4.90 |
| E1 | 3.25 | - | 3.70 |

Suggested PAD Layout



Dimensions in inches and (millimeters)

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