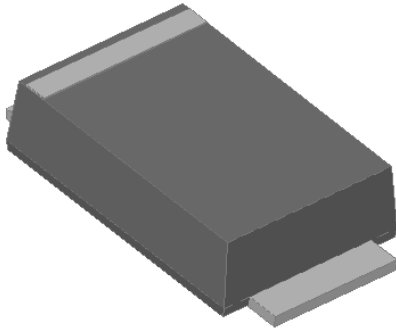


## Surface Mount Schottky Rectifier

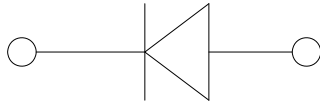


### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low VF
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

For use in low voltage high frequency inverters, Freewheeling, DC/DC converters, and polarity protection Applications.



### Mechanical Data

- **Package:** SMAF  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                    | SYMBOL           | UNIT | SU34F     |
|----------------------------------------------------------------------------------------------|------------------|------|-----------|
| Device marking code                                                                          |                  |      | SU34F     |
| Repetitive peak reverse voltage                                                              | V <sub>RRM</sub> | V    | 40        |
| Average rectified output current<br>@60Hz sine wave, Resistance load, T <sub>L</sub> (FIG.1) | I <sub>O</sub>   | A    | 3.0       |
| Surge(non-repetitive)forward current<br>@60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C  | I <sub>FSM</sub> | A    | 80        |
| Storage temperature                                                                          | T <sub>stg</sub> | °C   | -55 ~+150 |
| Junction temperature                                                                         | T <sub>j</sub>   | °C   | -55 ~+150 |

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                                                                                            | SYMBOL         | UNIT | TEST CONDITIONS       | SU34F |
|------------------------------------------------------------------------------------------------------|----------------|------|-----------------------|-------|
| Maximum instantaneous forward voltage drop per diode                                                 | V <sub>F</sub> | V    | I <sub>FM</sub> =3.0A | 0.4   |
| Maximum DC reverse current at rated DC blocking voltage per diode @V <sub>RM</sub> =V <sub>RRM</sub> | I <sub>R</sub> | mA   | T <sub>a</sub> =25°C  | 0.5   |
|                                                                                                      |                |      | T <sub>a</sub> =100°C | 10    |

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS



# SU34F

## ■ Thermal Characteristics ( $T_a=25^{\circ}\text{C}$ Unless otherwise specified)

| PARAMETER          | SYMBOL         | UNIT                        | SU34F             |
|--------------------|----------------|-----------------------------|-------------------|
| Thermal Resistance | R $\theta$ J-A | $^{\circ}\text{C}/\text{W}$ | 65 <sup>(1)</sup> |
|                    | R $\theta$ J-L |                             | 20 <sup>(1)</sup> |

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

## ■ Characteristics (Typical)

FIG1: Io-TL Curve

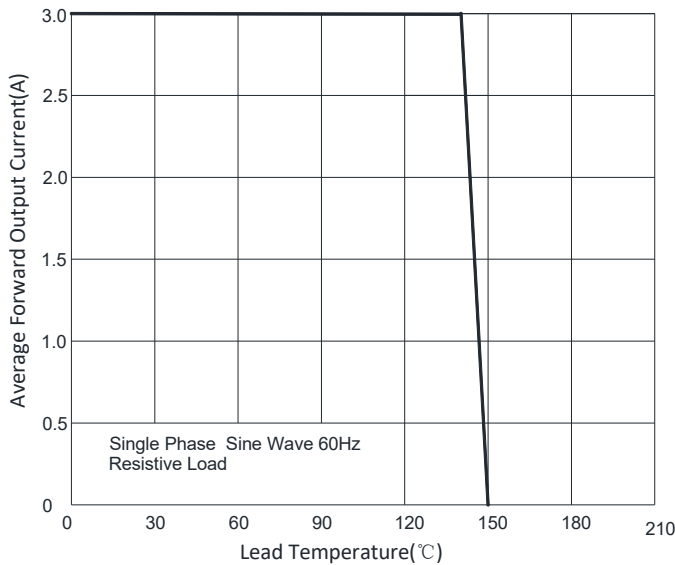


FIG2: Surge Forward Current Capability

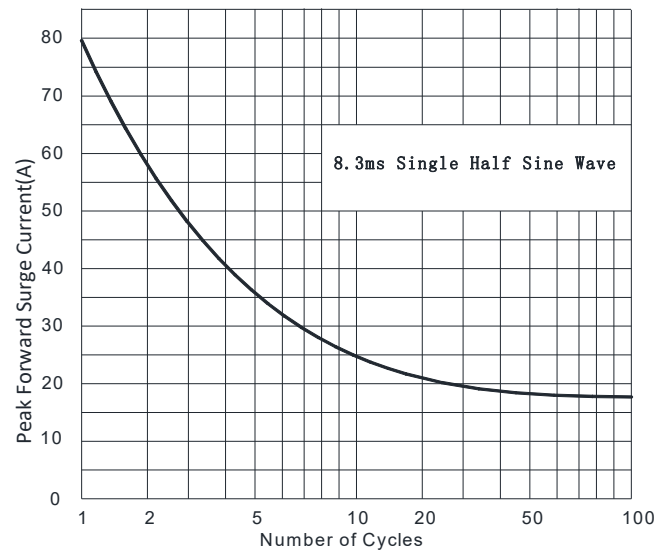


FIG3: Forward Voltage

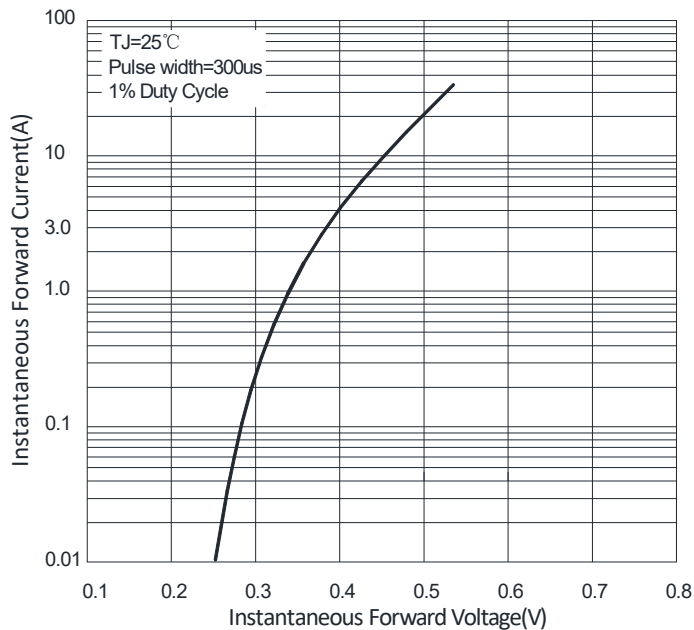
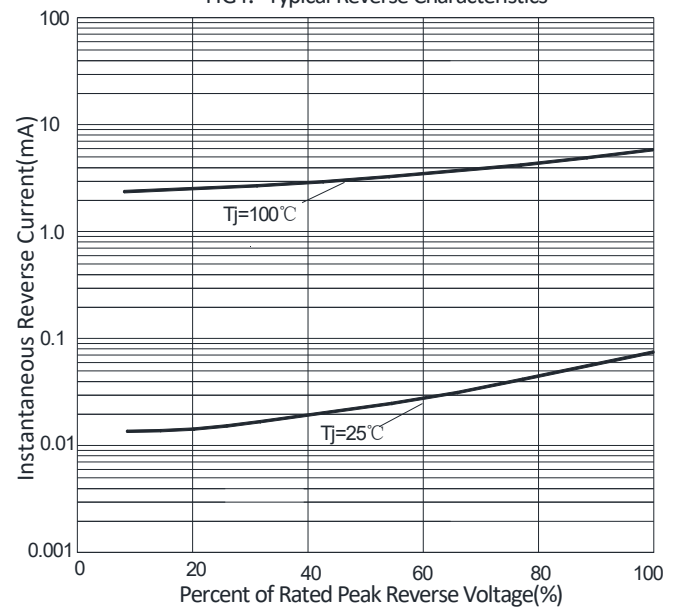
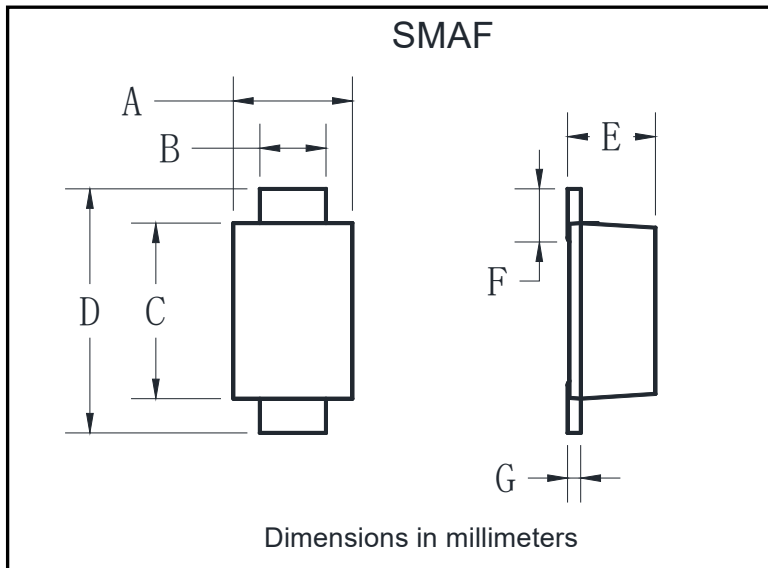


FIG4: Typical Reverse Characteristics

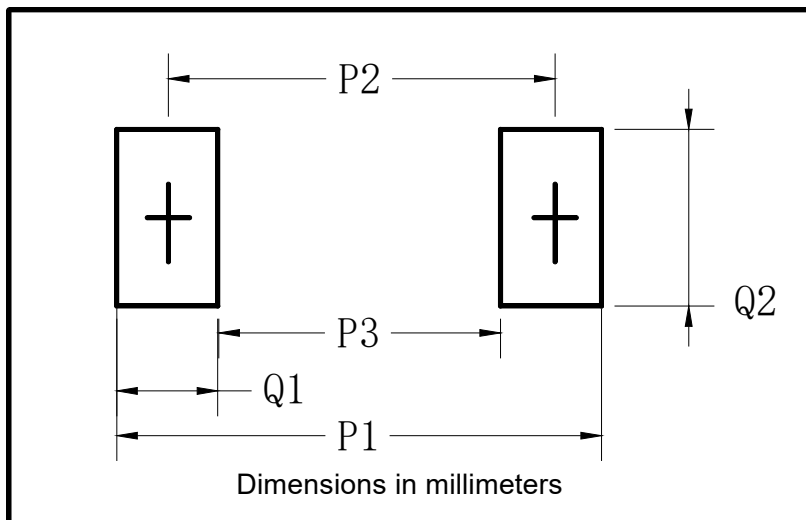


## ■ Outline Dimensions



| SMAF |      |      |
|------|------|------|
| Dim  | Min  | Max  |
| A    | 2.40 | 2.80 |
| B    | 1.35 | 1.45 |
| C    | 3.40 | 3.60 |
| D    | 4.40 | 4.80 |
| E    | 1.05 | 1.25 |
| F    | 0.50 | 1.00 |
| G    | 0.15 | 0.31 |

## ■ Suggested pad layout



| SMAF |             |
|------|-------------|
| Dim  | Millimeters |
| P1   | 6.50        |
| P2   | 4.00        |
| P3   | 1.50        |
| Q1   | 2.50        |
| Q2   | 1.70        |



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