

## Surface Mount Schottky Rectifier

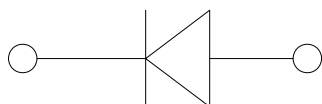


### Features

- 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, C/DC converters, and polarity protection applications.



### Mechanical Data

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

### ■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                        | SYMBOL    | UNIT | SSL34BF   | SSL345BF | SSL36BF | SSL310BF |
|----------------------------------------------------------------------------------|-----------|------|-----------|----------|---------|----------|
| Device marking code                                                              |           |      | SSL34BF   | SSL345BF | SSL36BF | SSL310BF |
| Repetitive peak reverse voltage                                                  | $V_{RRM}$ | V    | 40        | 45       | 60      | 100      |
| Average rectified output current<br>@60Hz sine wave, resistance load, TL (FIG.1) | $I_O$     | A    | 3.0       |          |         |          |
| Surge(non-repetitive)forward current<br>@60Hz half-sine wave, 1 cycle, Ta=25°C   | $I_{FSM}$ | A    | 60        |          |         |          |
| Storage temperature                                                              | $T_{stg}$ | °C   | -55 ~+150 |          |         |          |
| Junction temperature                                                             | $T_j$     | °C   | -55 ~+150 |          |         |          |

### ■Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER                                                                            | SYMBOL    | UNIT | TEST CONDITIONS | SSL34BF | SSL345BF | SSL36BF | SSL310BF |
|--------------------------------------------------------------------------------------|-----------|------|-----------------|---------|----------|---------|----------|
| Maximum instantaneous forward voltage drop per diode                                 | $V_F$     | V    | $I_{FM}=3.0A$   | 0.45    |          | 0.50    | 0.60     |
| Maximum DC reverse current at rated DC blocking voltage per diode @ $V_{RM}=V_{RRM}$ | $I_{RRM}$ | mA   | Ta=25°C         | 0.5     |          |         | 0.1      |
|                                                                                      |           |      | Ta=100°C        | 10      |          |         | 5        |

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

Note2:Pulse test:pulse width 40mS

# SSL34BF THRU SSL310BF

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

| PARAMETER                                 | SYMBOL            | UNIT | SSL34BF | SSL345BF | SSL36BF | SSL310BF |
|-------------------------------------------|-------------------|------|---------|----------|---------|----------|
| Typical Thermal Resistance <sup>(1)</sup> | R <sub>θJ-A</sub> | °C/W | 58      |          |         |          |
|                                           | R <sub>θJ-L</sub> |      | 20      |          |         |          |
|                                           | R <sub>θJ-C</sub> |      | 15      |          |         |          |

Note:

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad area ■

## ■ Characteristics(Typical)

FIG1: I<sub>o</sub>-T<sub>L</sub> Curve

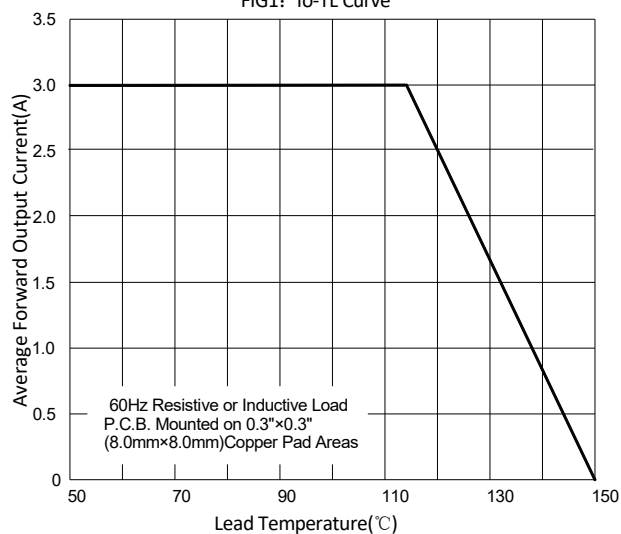


FIG2: Surge Forward Current Capability

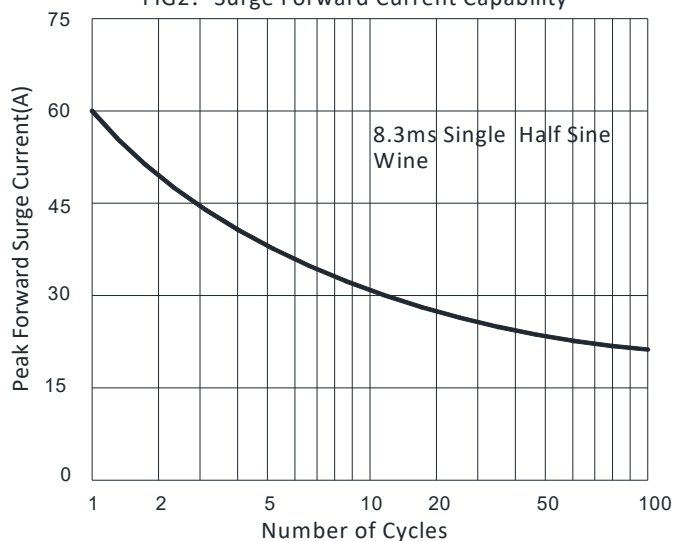


FIG3: Forward Voltage

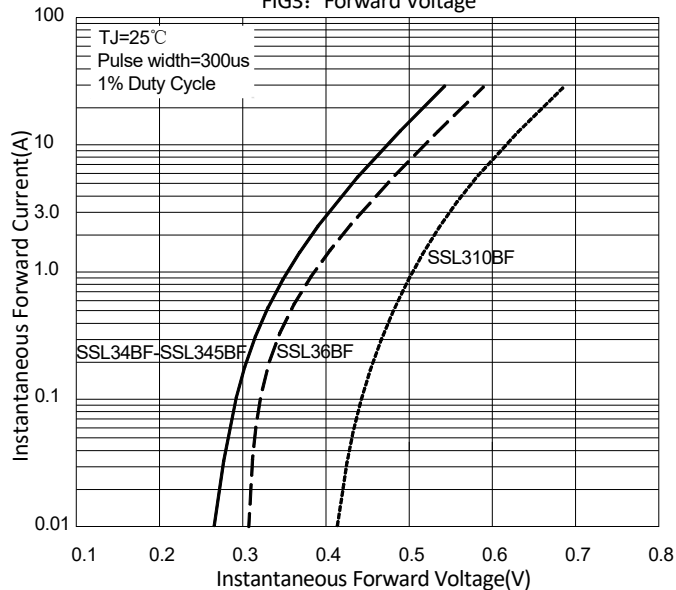
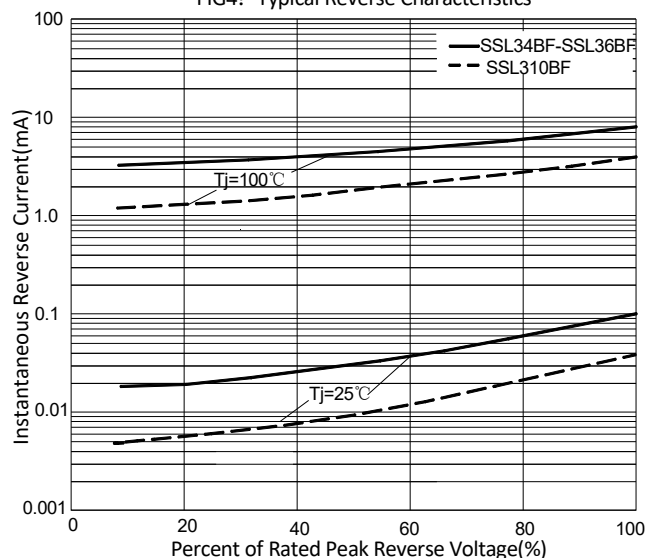


FIG4: Typical Reverse Characteristics

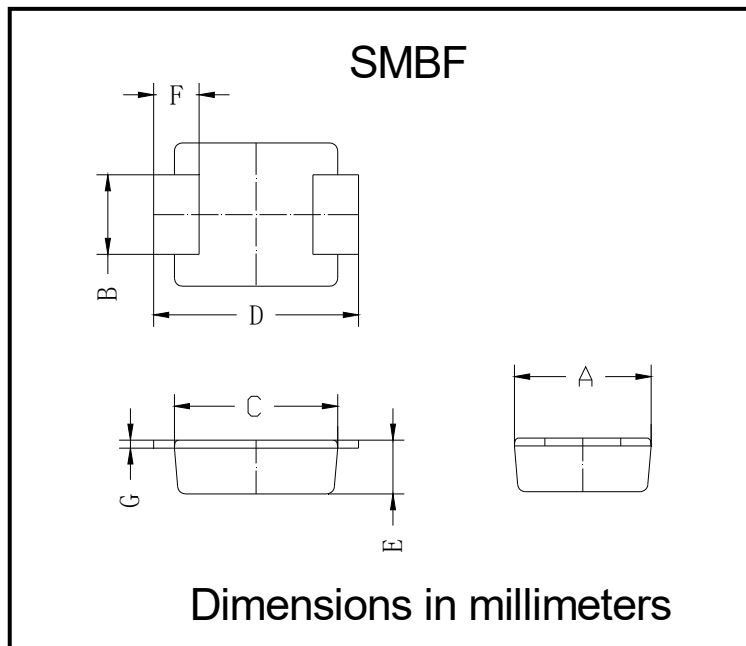


## SSL34BF THRU SSL310BF

### ■ Ordering Information (Example)

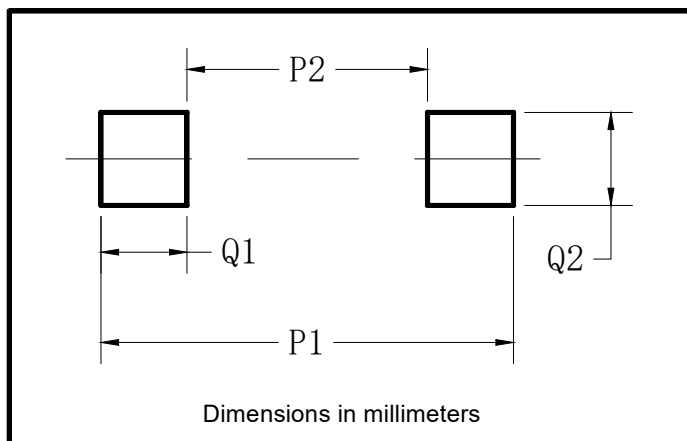
| PREFERED P/N     | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|------------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| SSL34BF-SSL310BF | F1           | Approximate 0.096 | 5000                 | /                       | 80000                      | 13" reel      |

### ■ Outline Dimensions



| SMBF |      |      |
|------|------|------|
| Dim  | Min  | Max  |
| A    | 3.40 | 3.80 |
| B    | 1.90 | 2.10 |
| C    | 4.15 | 4.45 |
| D    | 5.10 | 5.60 |
| E    | 1.05 | 1.55 |
| F    | 0.70 | 1.35 |
| G    | 0.15 | 0.25 |

### ■ Suggested Pad Layout



| Dim | Milimeters |
|-----|------------|
| P1  | 6.20       |
| P2  | 2.40       |
| Q1  | 1.90       |
| Q2  | 2.20       |

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