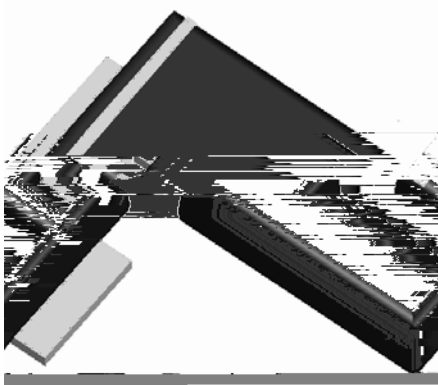


## Surface Mount Super Fast Recovery Rectifier

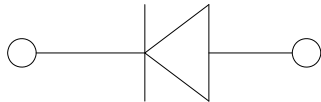


### Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

For use in high frequency rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication.



### Mechanical Data

- **Package:** SMBF  
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 Unless otherwise specified)

| PARAMETER           | SYMBOL | UNIT | UG3ABF | UG3BBF | UG3CBF | UG3DBF | UG3FBF | UG3GBF | UG3HBF | UG3JBF |
|---------------------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|
| Device marking code |        |      | UG3ABF | UG3BBF | UG3CBF | UG3DBF | UG3FBF | UG3GBF | UG3HBF | UG3JBF |
| Maxi                | =      | '    | 50     | 100    | 150    | 200    | 300    | 400    | 500    | 600    |

|                                                                                               |      |     |            |  |  |  |    |  |    |  |
|-----------------------------------------------------------------------------------------------|------|-----|------------|--|--|--|----|--|----|--|
|                                                                                               |      |     |            |  |  |  |    |  |    |  |
| Average rectified output current<br>@60Hz sine wave, resistance load, TL (Fig.1)              | IO   | A   | 3.0        |  |  |  |    |  |    |  |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave,1 cycle, Tj=25                 | IFSM | A   | 100        |  |  |  |    |  |    |  |
| Forward Surge Current (Non-repetitive)<br>@1ms, square wave, 1 cycle, Tj=25                   |      |     | 200        |  |  |  |    |  |    |  |
| Current squared time<br>@1ms≤t≤8.3ms Tj=25      Rating of per diode                           | I²t  | A²s | 41.5       |  |  |  |    |  |    |  |
| Typical junction capacitance<br>@Measured at 1MHz and Applied Reverse<br>Voltage of 4.0 V.D.C | Cj   | pF  | 65         |  |  |  | 58 |  | 55 |  |
| Storage temperature                                                                           | Tstg |     | -55 ~ +150 |  |  |  |    |  |    |  |
| Junction temperature                                                                          | Tj   |     | -55 ~ +150 |  |  |  |    |  |    |  |



# UG3ABF THRU UG3JBF

■Electrical Characteristics     $T_a=25$     Unless otherwise specified

| PARAMETER | SYMBOL |
|-----------|--------|
|-----------|--------|

$T_a$



## UG3ABF THRU UG3JBF

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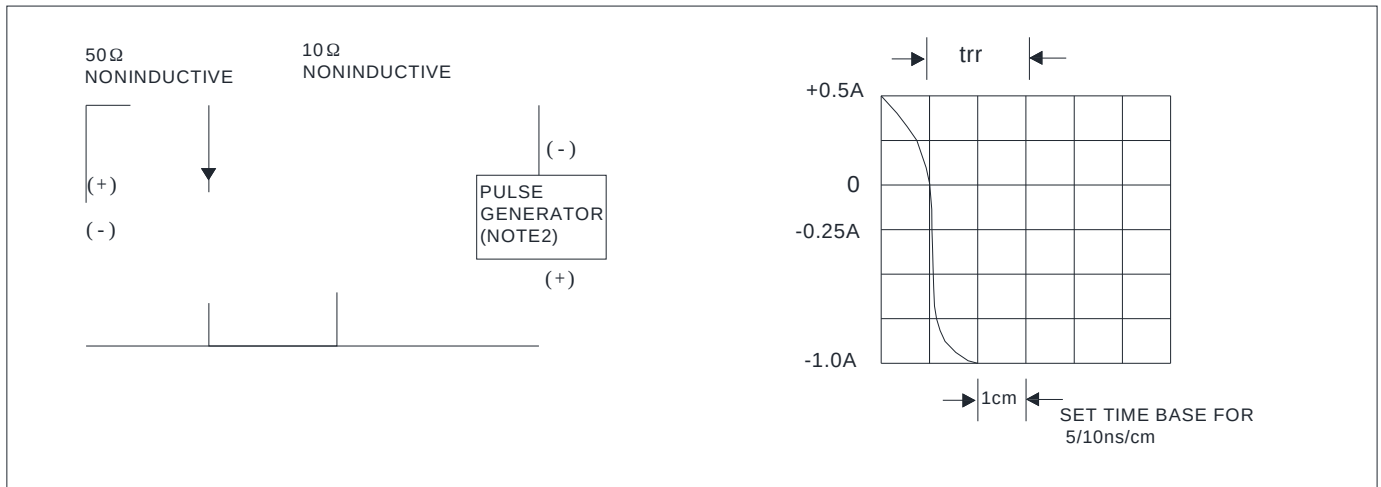
■ Thermal Characteristics     $T_a=25$     Unless otherwise specified    i

▼ E ω U



## UG3ABF THRU UG3JBF

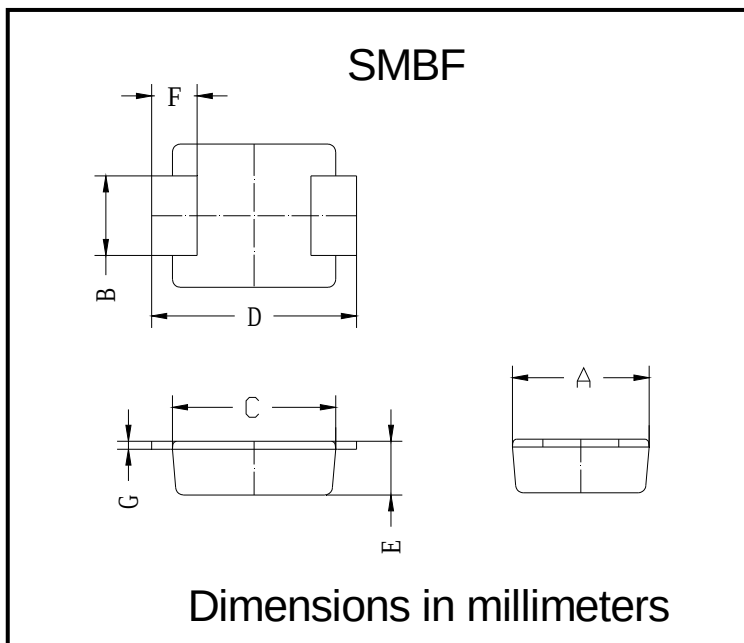
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



### ■ Ordering Information (Example)

| PREFERRED P/N   | PACKING CODE | UNIT WEIGHT(g)    | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| UG3ABF - UG3JBF | F1           | Approximate 0.065 | 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 |



## UG3ABF THRU UG3JBF

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Ÿ Suggested pad layout

| Dim | Milimeters |
|-----|------------|
| P1  | 6.20       |



### Disclaimer

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