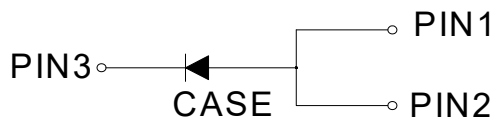
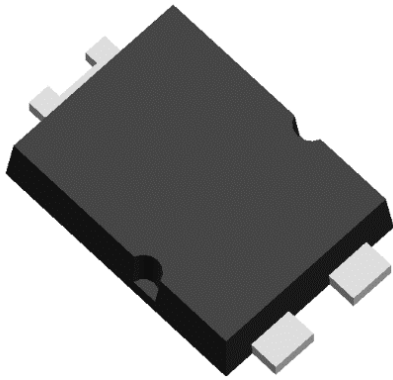


## Schottky Rectifier



### Features

- Ideal for automated placement
- Low power losses
- High forward surge capability
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C

### Typical Applications

For use in lighting, fast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- **Package:** TO-277  
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

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

| PARAMETER                                                                                     | SYMBOL           | UNIT             | SS10U100  |
|-----------------------------------------------------------------------------------------------|------------------|------------------|-----------|
| Device marking code                                                                           |                  |                  | SS10U100  |
| Repetitive Peak Reverse Voltage                                                               | V <sub>RRM</sub> | V                | 100       |
| Average Rectified Output Current<br>@60Hz -sine wave, R- load, T <sub>c</sub> =100°C          | I <sub>O</sub>   | A                | 10        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C | I <sub>FSM</sub> | A                | 250       |
| Current Squared Time<br>@1ms≤t≤8.3ms T <sub>j</sub> =25°C                                     | I <sup>2</sup> t | A <sup>2</sup> s | 260       |
| 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                               | Min | Typ  | Max  |
|---------------------------|-----------------|------|-----------------------------------------------|-----|------|------|
| Peak Forward Voltage      | V <sub>FM</sub> | V    | I <sub>FM</sub> =10.0A, T <sub>j</sub> =25°C  | -   | 0.56 | 0.65 |
|                           |                 |      | I <sub>FM</sub> =10.0A, T <sub>j</sub> =125°C | -   | 0.49 | 0.58 |
| Reverse Breakdown Voltage | V <sub>BR</sub> | V    | I <sub>R</sub> =0.5mA                         | 100 | -    | -    |
| Leakage Current           | I <sub>R</sub>  | mA   | V <sub>R</sub> =100V, T <sub>j</sub> =25°C    | -   | -    | 0.1  |
|                           |                 |      | V <sub>R</sub> =100V, T <sub>j</sub> =100°C   | -   | -    | 10   |

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

Note2:Pulse test:pulse width 40mS



# SS10U100

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

| PARAMETER          |                  | SYMBOL                 | UNIT                 | SS10U100 |
|--------------------|------------------|------------------------|----------------------|----------|
| Thermal Resistance | Junction to Case | $R_{\theta\text{J-C}}$ | $^{\circ}\text{C/W}$ | 8        |

## ■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)     | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|--------------------|----------------------|-------------------------|----------------------------|---------------|
| SS10U100      | F1           | Approximate 0.0821 | 5000                 | 10000                   | 80000                      | 13" reel      |

## ■ Characteristics (Typical)

FIG.1:  $I_o$ - $T_c$  Curve

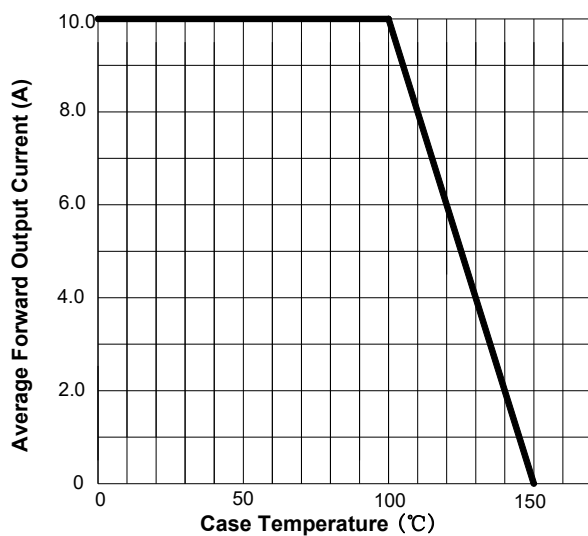


FIG.2: Forward Surge Current Capability

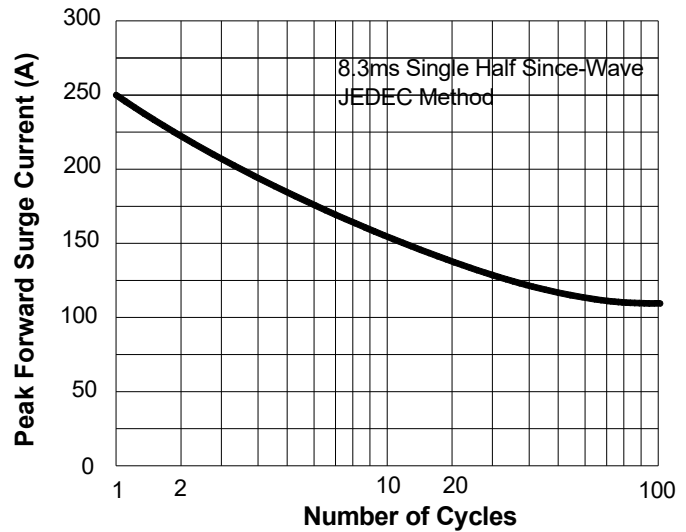


FIG.3: Forward Voltage

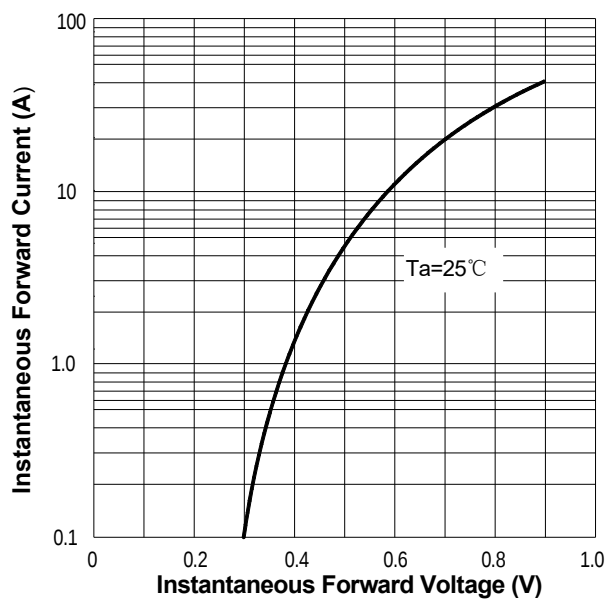
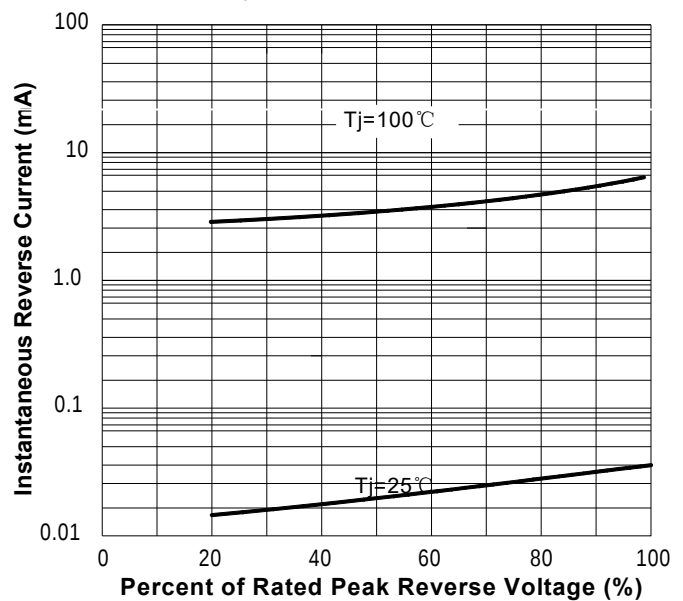
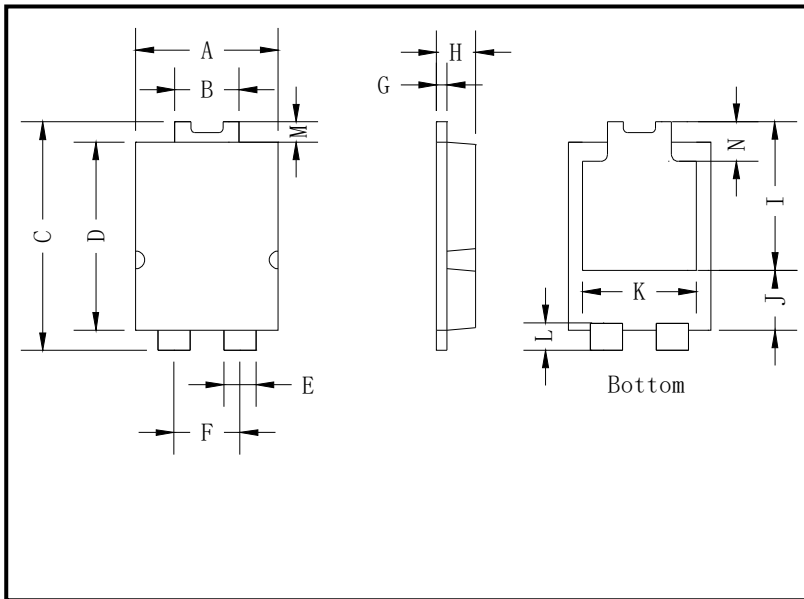


FIG.4: Typical Reverse Characteristics

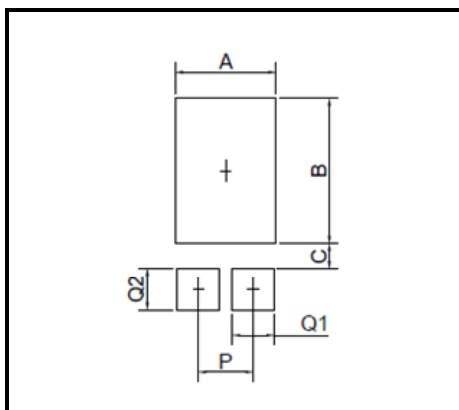


## ■ Outline Dimensions



| TO-277 |           |         |
|--------|-----------|---------|
| Dim    | Min(mm)   | Max(mm) |
| A      | 3.90      | 4.10    |
| B      | 1.70      | 1.90    |
| C      | 6.40      | 6.60    |
| D      | 5.30      | 5.50    |
| E      | 0.80      | 1.00    |
| F      | 1.85 ref. |         |
| G      | 0.35      | 0.45    |
| H      | 1.10      | 1.20    |
| I      | 4.10      | 4.50    |
| J      | 1.50      | 1.90    |
| K      | 2.90      | 3.40    |
| L      | 0.55      | 0.75    |
| M      | 0.50 ref. |         |
| N      | 1.15 ref. |         |

## ■ Suggested pad layout



| DIM | MIN.(mm) |
|-----|----------|
| A   | 3.36     |
| B   | 4.86     |
| C   | 0.85     |
| P   | 1.84     |
| Q1  | 1.40     |
| Q2  | 1.40     |



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