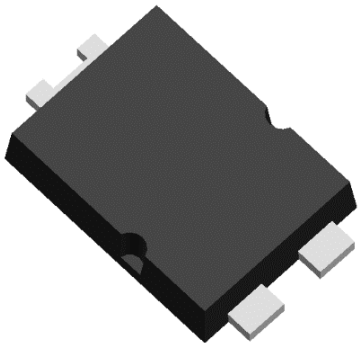
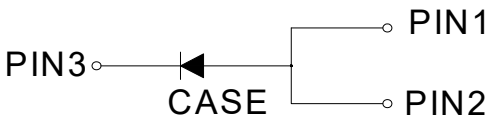
# Schottky Rectifier






## 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 ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SS10U100P |
|---|---|---|---|
| Device marking code | | | SS10U100P |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 100 |
| Average Rectified Output Current @60Hz -sine wave, R- load, Tc=107℃ | $I_O$ | A | 10 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃ | $I_{FSM}$ | A | 200 |
| Current Squared Time @1ms≤t≤8.3ms $T_j$=25℃ | $I^2t$ | $A^2s$ | 166 |
| Storage Temperature | Tstg | ℃ | -55 ~+175 |
| Junction Temperature | Tj | ℃ | -55 ~+175 |

## ■Electrical Characteristics ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | Min | Typ | Max |
|---|---|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | V | $I_{FM}$ =10.0A,Tj=25℃ | - | 0.77 | 0.85 |
| | | | $I_{FM}$ =10.0A,Tj=125℃ | - | 0.64 | 0.72 |
| Reverse Breakdown Voltage | $V_{BR}$ | V | $I_R$=0.5mA | 100 | - | - |
| Leakage Current | $I_R$ | mA | $V_R$=100V，Tj=25℃ | - | - | 0.01 |
| | | | $V_R$=100V，Tj=125℃ | - | - | 3 |

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

Note2:Pulse test:pulse widh 40mS

## ■Thermal Characteristics ($T_a$=25℃ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | SS10U100P |
|---|---|---|---|---|
| Thermal Resistance | Junction to Case | $R_{\theta J-C}$ | ℃/W | 8 |

## ■Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| SS10U100P | F1 | Approximate 0.0821 | 5000 | 10000 | 80000 | 13” reel |

## ■ Characteristics (Typical)

FIG.1: Io-Tc Curve

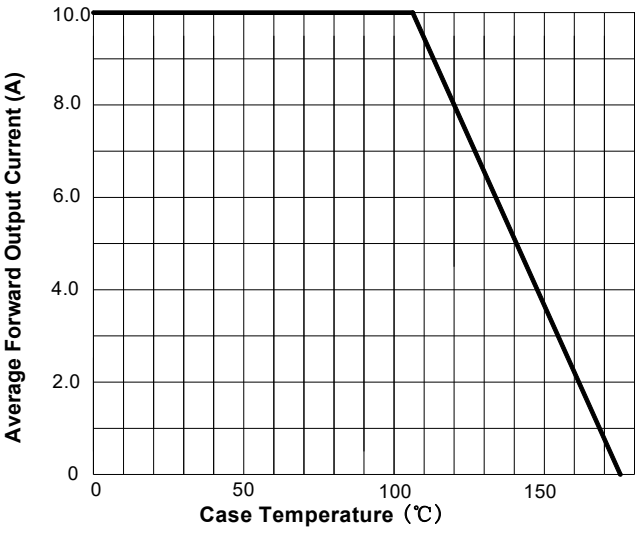



FIG.2: Forward Surge Current Capability

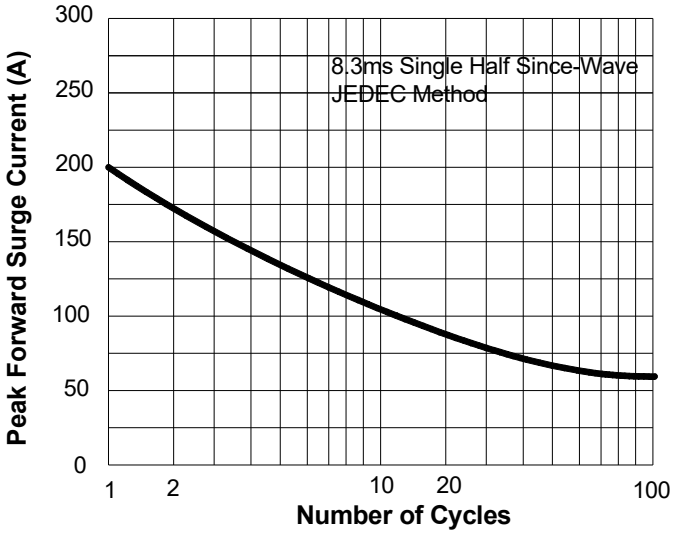



FIG3: Forward Voltage

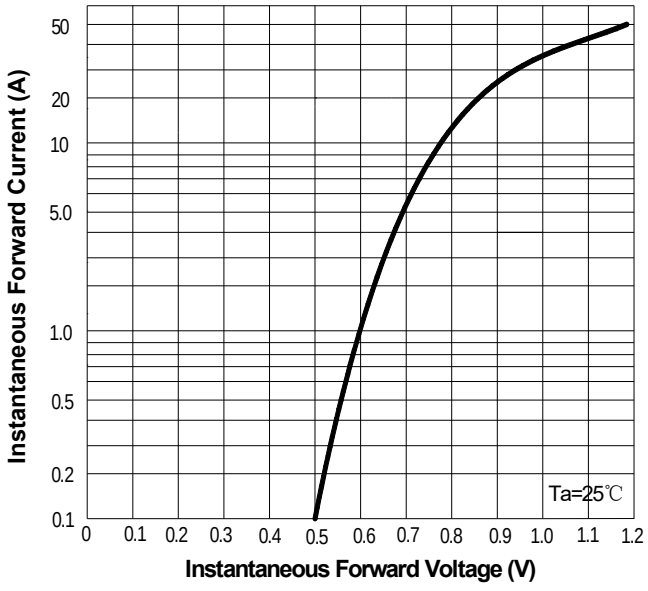
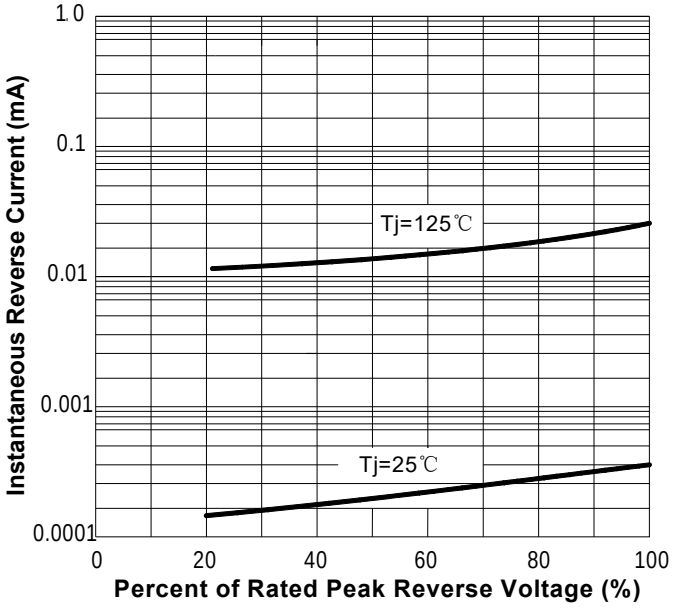
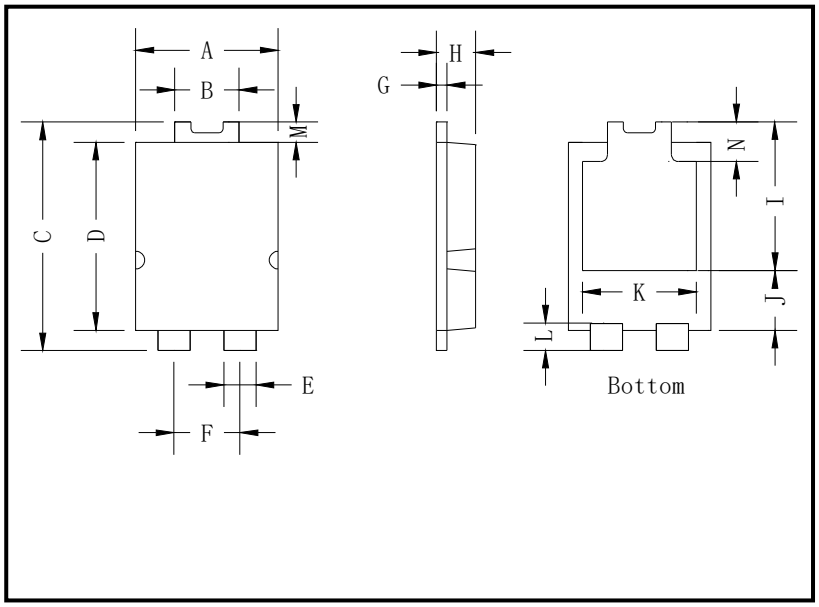



FIG.4: Typical Reverse Characteristics

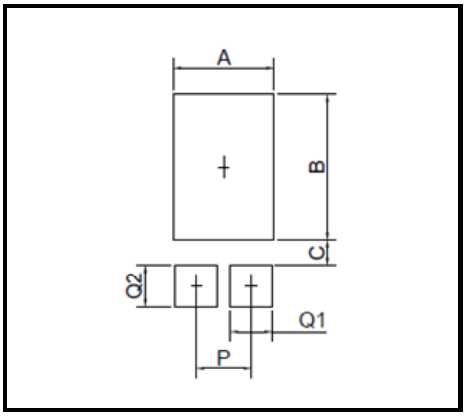


## ■ Outline Dimensions




| 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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