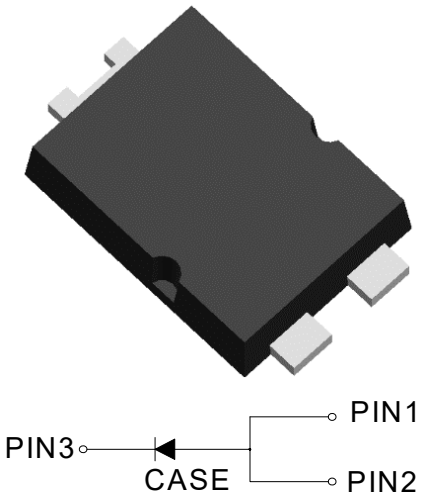
# Schottky Rectifier




## Features

- Ideal for automated placement
- Low power losses
- High forward surge capability

## Typical Applications

For use in lighting, fast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer, automotive, 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 | SS5U60 |
|---|---|---|---|
| Device marking code | | | SS5U60 |
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 60 |
| Average Rectified Output Current @60Hz -sine wave, R- load, Tc=130℃ | $I_O$ | A | 5 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃ | $I_{FSM}$ | A | 130 |
| Current Squared Time @1ms≤t≤8.3ms Tj=25℃ | $I^2t$ | $A^2s$ | 70 |
| Storage Temperature | $T_{stg}$ | ℃ | -55 ~+150 |
| Junction Temperature | Tj | ℃ | -55 ~+150 |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | Min | Typ | Max |
|---|---|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | V | $I_{FM}$ =5.0A,Tj=25℃ | - | 0.44 | 0.52 |
| | | | $I_{FM}$ =3.0A,Tj=25℃ | - | 0.39 | 0.47 |
| Reverse Breakdown Voltage | $V_{BR}$ | V | $I_R$=0.5mA | 60 | - | - |
| Leakage Current | $I_R$ | mA | $V_R$=60V，Tj=25℃ | - | - | 0.2 |
| | | | $V_R$=60V，Tj=100℃ | - | - | 50 |

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 | SS5U60 |
|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|---|
| SS5U60 | F1 | Approximate 0.0816 | 5000 | 10000 | 80000 | 13” reel |

## ■ Characteristics(Typical)

FIG.1: Io-Tc Curve

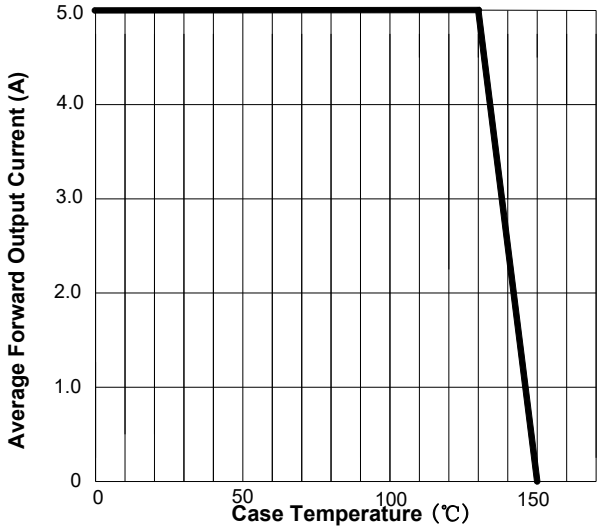



FIG.2: Surge Forward Currrent Capadility

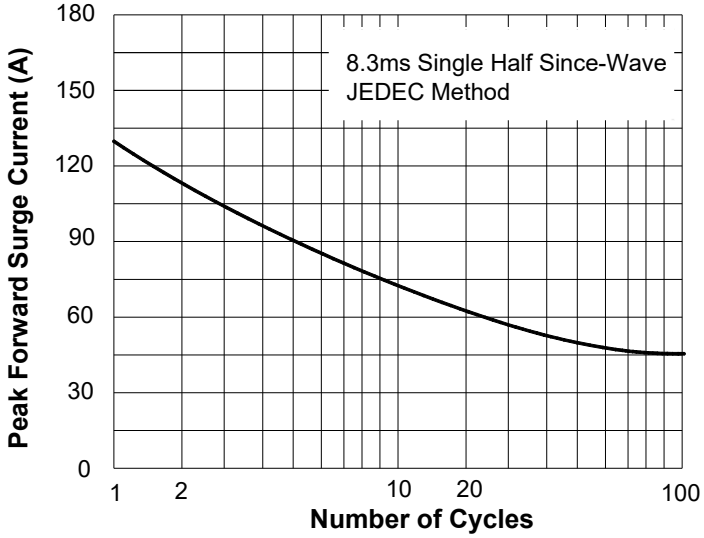



FIG.3: Forward Voltage

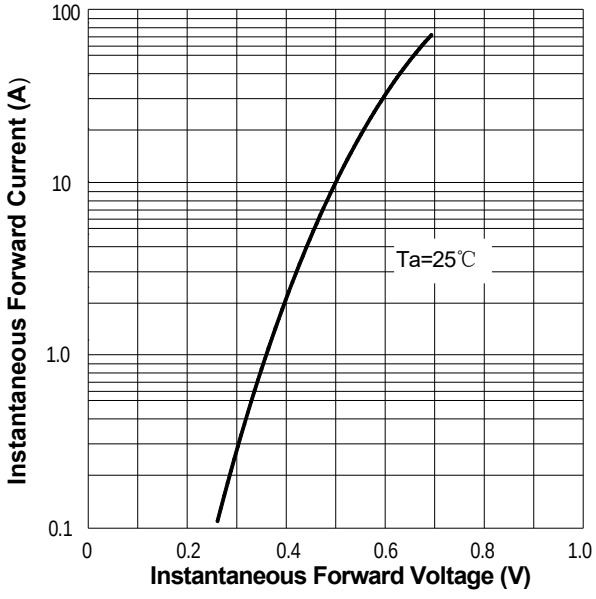
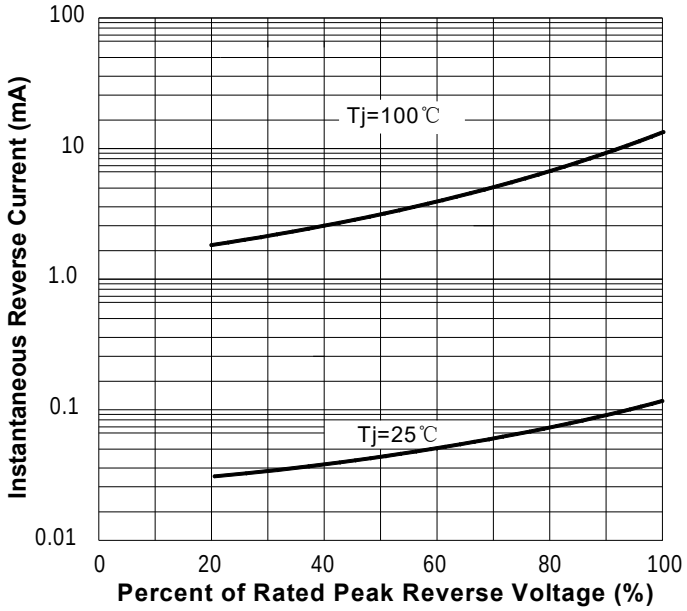
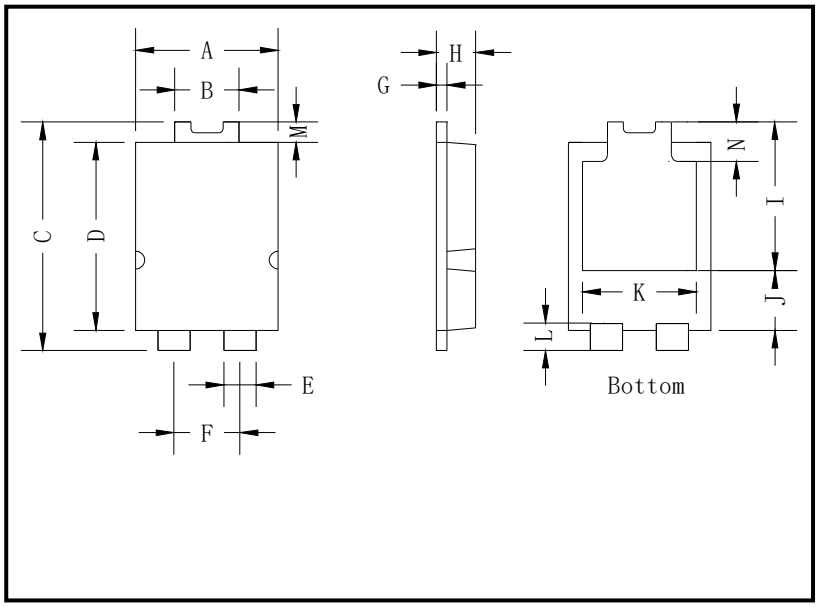



FIG.4: Typical Reverse Characteristics

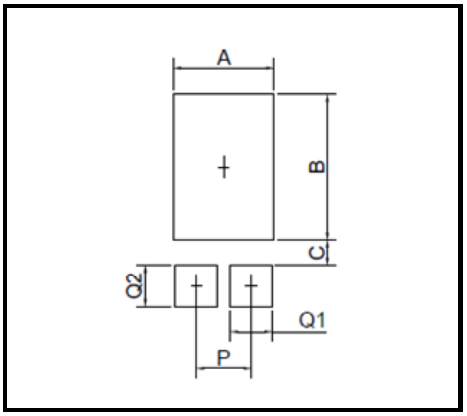


## ■ Outline Dimensions




| 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 |

## Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.