Pb Free Plating Product

# S15U45S

15 Ampere Lower VF Miniature Surface Mount Schottky Barrier Rectifier

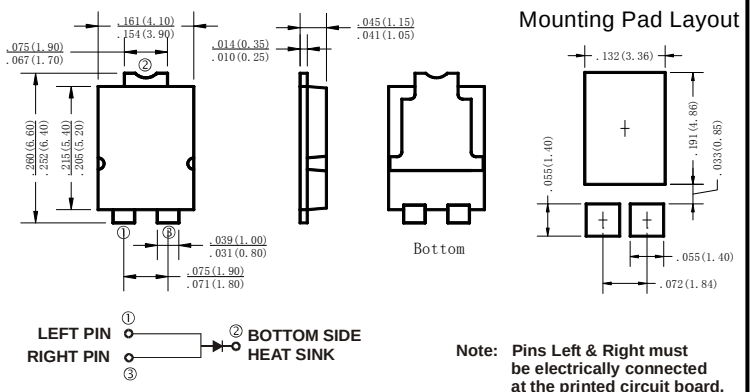
## ■ Features

- High surge Forward current capability
- Low Power loss, High efficiency
- $I_{F(AV)}$ 15A
- $V_{RRM}$ 45V

## ■ Applications

- Switching Power Supply Industry
- Photovoltaic Solar cell Protection Schottky Rectifier

TO-277/POWERDI5 Dimensions in inches and (millimeters)




Limiting Values（Absolute Maximum Rating）

| Item | Symbol | Unit | Conditions | S15U45S |
|---|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | | 45 |
| Average Rectified Output Current | $I_O$ | A | 60HZ sine wave, R- load, Ta=25℃ | 15 |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A | 60HZ sine wave, 1 cycle, Ta=25℃ | 300 |
| Current Squared Time | $I^2t$ | $A^2s$ | 1ms≤t<8.3ms $T_j$=25℃ | 375 |
| Storage Temperature | Tstg | ℃ | | -55 ~ +150 |
| Junction Temperature | Tj | ℃ | | -55~+150 |
| Thermal Resistance(Typical) | $R_{\theta J-C}$ | ℃/W | Between Junction and Case | 8 |

Electrical Characteristics（Ta=25℃ Unless otherwise specified）

| Item | Symbol | Unit | Test Condition | Min | Typ | Max |
|---|---|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | V | I FM =15.0A,Tj=25℃ | - | 0.43 | 0.46 |
| | | | I FM =15.0A,Tj=125℃ | - | 0.38 | 0.41 |
| Reverse Breakdown Voltage | $V_{BR}$ | V | IR=0.5mA | 45 | - | - |
| Leakage Current | IR | mA | VR=45V，Tj=25℃ | - | - | 0.5 |
| | | | VR=45V，Tj=125℃ | - | - | 100 |



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## Rating and Characteristic Curves

FIG1: IF（AV）--Tc Derating

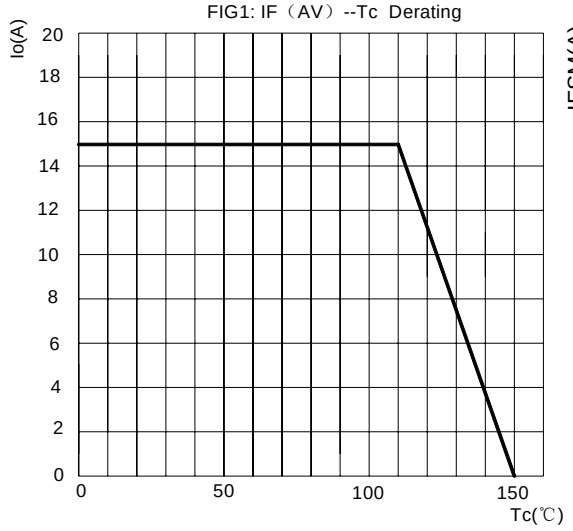



FIG2:Surge Forward Current Capadility

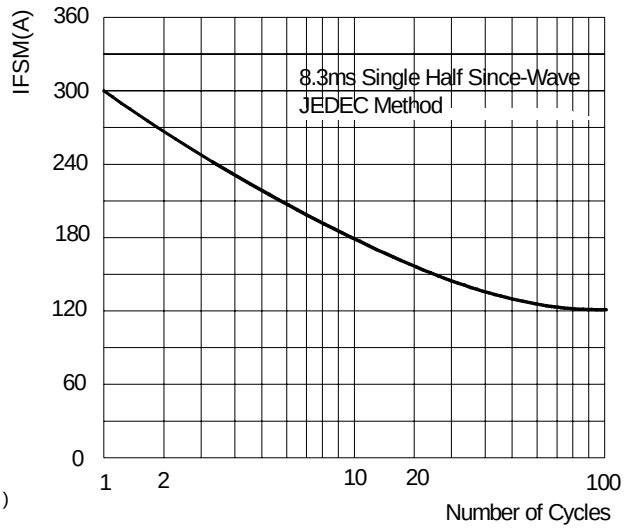



FIG3:Instantaneous Forward Voltage

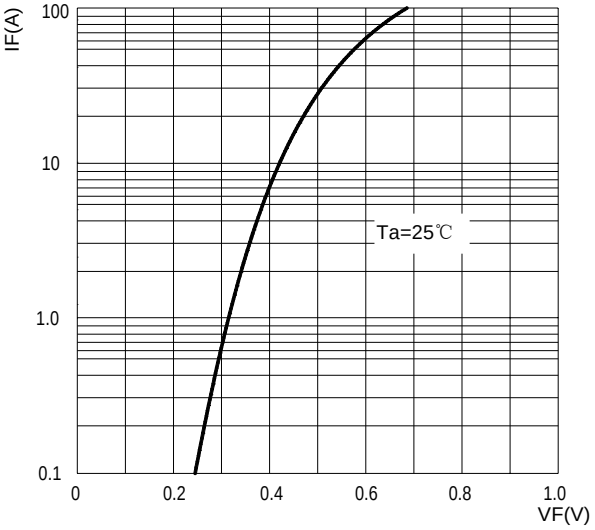
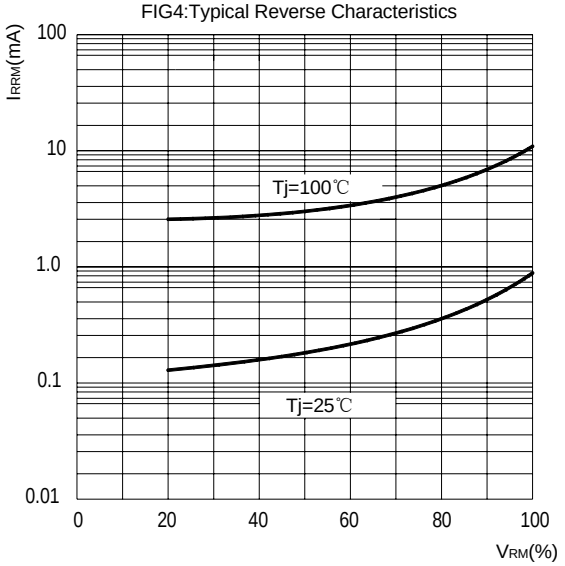



FIG4:Typical Reverse Characteristics





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