

**Surface Mount Schottky Barrier Rectifiers****Features**

- Low power loss, high efficiency
- For surface mounted applications
- Low forward voltage drop
- Trench schottky technology
- Meet UL flammability classification 94V-0

**Mechanical Data**

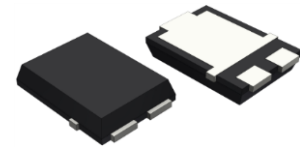
- Case: JEDEC TO-277A molded plastic
- Polarity: As marked on the body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

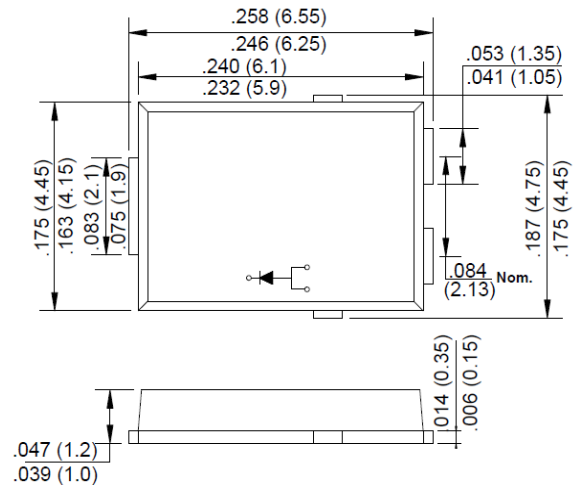
**Applications**

- For use in low voltage, high frequency inverters, polarity protection applications

**Reverse Voltage - 45Volts**  
**Forward Current - 15.0 Amperes**

**TO-277A**

**RoHS**  
COMPLIANT

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristics                                                                                       |                       |                     | Symbol             | S15P45U        | Unit |
|-------------------------------------------------------------------------------------------------------|-----------------------|---------------------|--------------------|----------------|------|
| Maximum Repetitive Peak Reverse Voltage                                                               |                       |                     | V <sub>RRM</sub>   | 45             | V    |
| Maximum RMS Voltage                                                                                   |                       |                     | V <sub>RMS</sub>   | 31.5           | V    |
| Maximum DC Blocking Voltage                                                                           |                       |                     | V <sub>DC</sub>    | 45             | V    |
| Maximum Average Forward Rectified Current (Note 1) @ T <sub>c</sub> =110℃                             |                       |                     | I <sub>F(AV)</sub> | 15.0           | A    |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)    |                       |                     | I <sub>FSM</sub>   | 320            | A    |
| Peak Forward Voltage (Note2)                                                                          | I <sub>F</sub> =1.0A  | T <sub>J</sub> =25℃ | V <sub>F</sub>     | 0.30           | V    |
|                                                                                                       | I <sub>F</sub> =2.0A  |                     |                    | 0.33           |      |
|                                                                                                       | I <sub>F</sub> =15.0A |                     |                    | 0.45           |      |
| Maximum DC Reverse Current @T <sub>J</sub> =25℃<br>at Rated DC Blocking Voltage @T <sub>J</sub> =100℃ |                       |                     | I <sub>R</sub>     | 0.3<br>15      | mA   |
| Junction Temperature Range                                                                            |                       |                     |                    | T <sub>J</sub> |      |
| Storage Temperature Range                                                                             |                       |                     | T <sub>STG</sub>   | -55 to+150     | ℃    |

Notes: 1. Mounted on 50 cm<sup>2</sup> FR-4 PCB .

2. 300uS pulse width, 2%duty cycle.

3. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

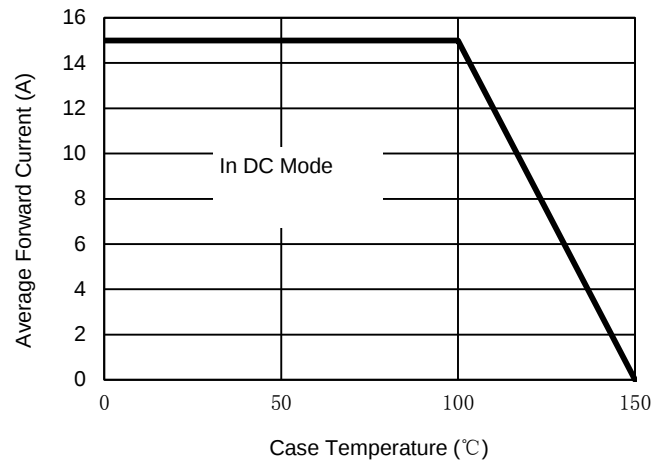


Fig. 2 - Maximum Non-Repetitive Surge Current

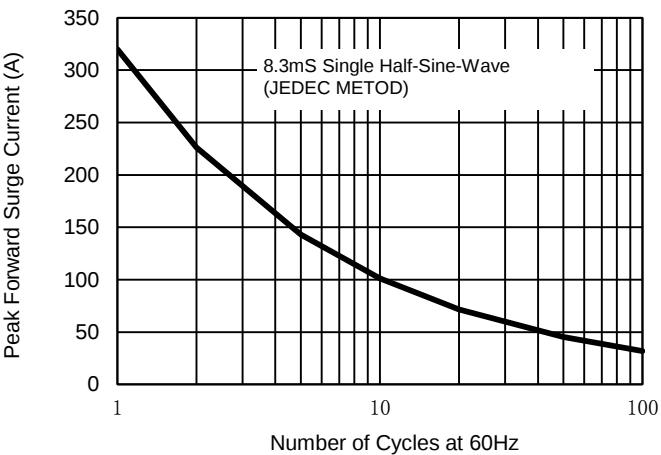


Fig. 3 - Typical Reverse Characteristics

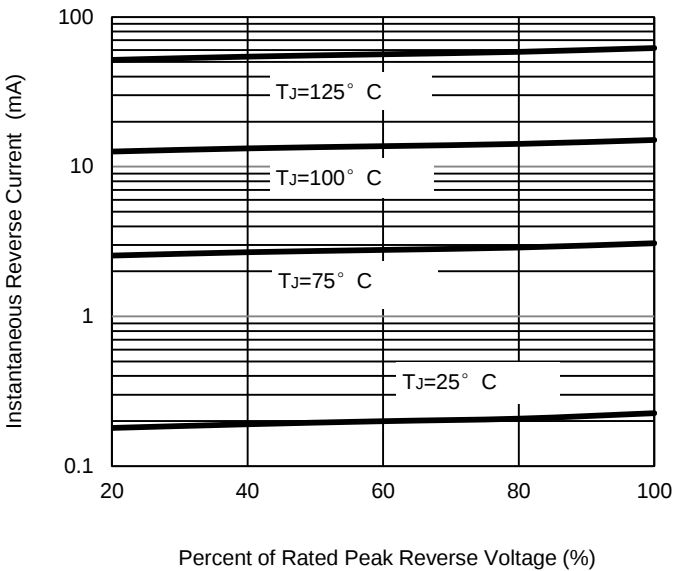
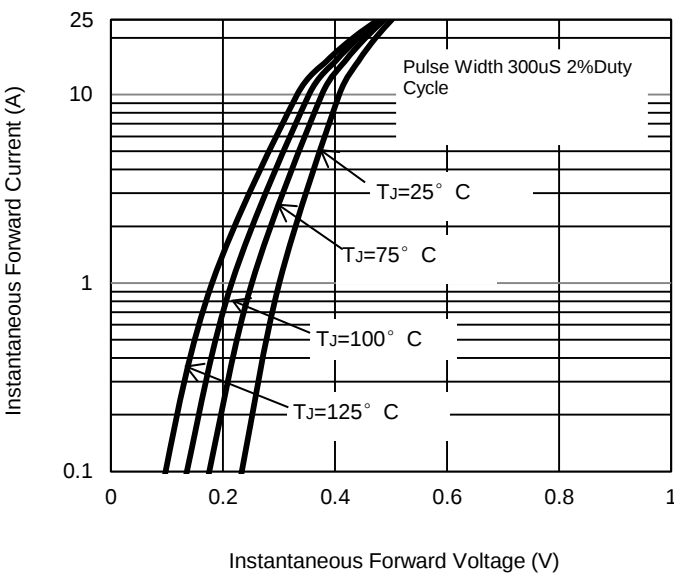


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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