

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 45V
Forward Current - 5 A
FEATURES

- ◆Metal silicon junction, majority carrier conduction
- ◆For surface mounted applications
- ◆Low power loss, high efficiency
- ◆High forward surge current capability
- ◆For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- ◆Case: SMA
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 0.055g / 0.002oz

Maximum Ratings and Electrical characteristics

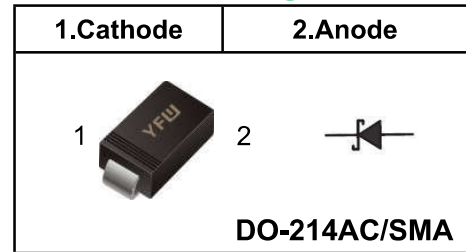
Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

| Parameter | Symbols | SSL545 | Units |
|--|-----------------|------------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 45 | V |
| Maximum RMS voltage | V_{RMS} | 32 | V |
| Maximum DC Blocking Voltage | V_{DC} | 45 | V |
| Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 5 | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 150 | A |
| Maximum Instantaneous Forward Voltage at 5A | V_F | 0.45 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$ | I_R | 1.0 50 | mA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 800 | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JA}$ | 45 | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range | T_j | -55 ~ +125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | $^\circ\text{C}$ |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Pinning

Marking Code

| | |
|---------------|-------------------|
| SSL545 | YFW SSL545 |
|---------------|-------------------|

Ratings And Characteristic Curves

Fig.1 Forward Current Derating Curve

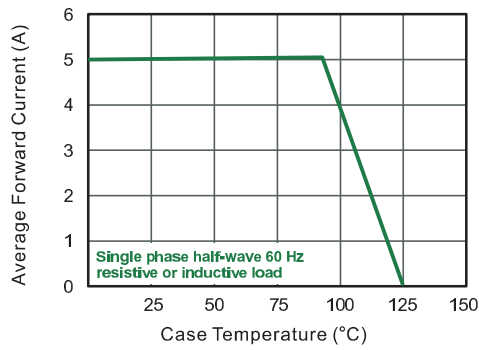


Fig.2 Typical Reverse Characteristics

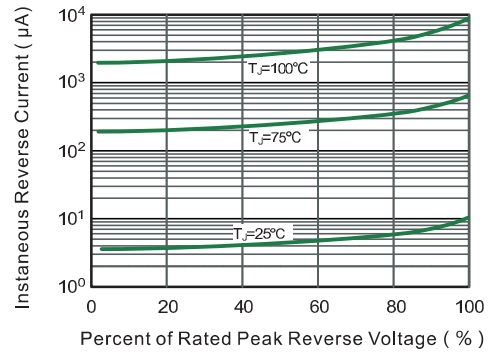


Fig.3 Typical Forward Characteristic

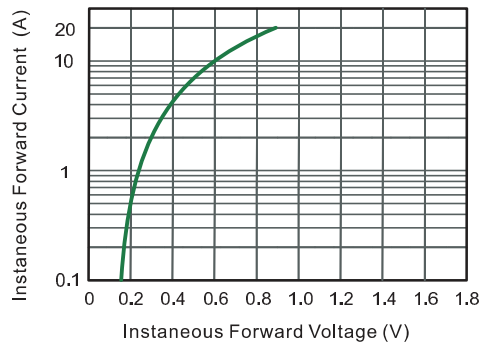


Fig.4 Typical Junction Capacitance

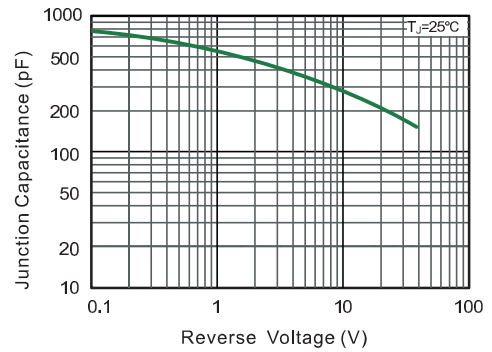


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

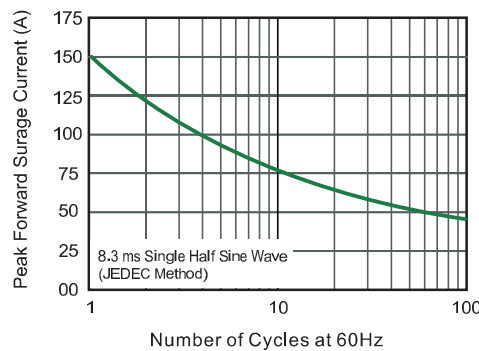
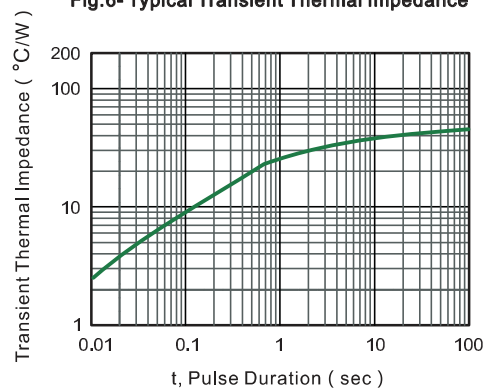


Fig.6- Typical Transient Thermal Impedance



Marking Diagram



Ordering information

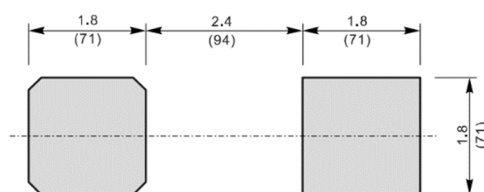
| Package | Packing Description | Packing Quantity |
|--------------|---------------------|------------------------------|
| DO-214AC SMA | Tape/Reel, 13" reel | 5000PCS/Reel 50000PCS/Carton |
| | Tape/Reel, 7" reel | 2000PCS/Reel 50000PCS/Carton |

Package Dimensions

DO-214AC SMA

| Dim. | Millimeter(mm) | | mil | |
|----------------|----------------|------|------|------|
| | Min. | Max. | Min. | Max. |
| A | 1.9 | 2.45 | 75 | 96 |
| D | 4.0 | 4.5 | 157 | 181 |
| E | 2.5 | 2.8 | 100 | 110 |
| H _E | 4.7 | 5.2 | 185 | 205 |
| c | 0.15 | 0.31 | 6 | 12 |
| e | 1.3 | 1.8 | 51 | 71 |
| g | 0.9 | 1.5 | 35 | 59 |
| b | 0.05 | 0.2 | 2 | 7.9 |
| a | 0.3 | | 12 | |

The recommended mounting pad size



Unit : $\frac{\text{mm}}{\text{mil}}$

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