

# DSL14W~DSL16W

Rev.A Oct.-2020



DATA SHEET

/ Revised record

| A | 2020-10-28 |  |  |  |  |
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## / Descriptions

40V~60V

1.0A

SOD-123FL

Surface Mount Schottky Barrier Rectifier, Reverse Voltage: 40V~60V, Forward Current: 1.0A, SOD-123FL thin package.

## / Features

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications, For surface mounted applications. Halogen free product.

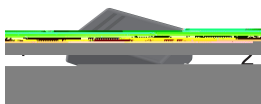
## / Applications

General purpose.

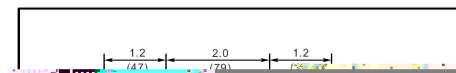
## / Equivalent Circuit



## / Pinning



The recommended mounting pad size



## / Marking

See Marking Instructions.

## / Absolute Maximum Ratings(Ta=25 )

| 参数<br>Parameter                                                                    | 符号<br>Symbol    | 数值<br>Rating |        | 单位<br>Unit |
|------------------------------------------------------------------------------------|-----------------|--------------|--------|------------|
|                                                                                    |                 | DSL14W       | DSL16W |            |
| Maximum Recurrent Peak Reverse Voltage                                             | $V_{RRM}$       | 40           | 60     | V          |
| Maximum RMS Voltage                                                                | $V_{RMS}$       | 28           | 42     | V          |
| Maximum DC Blocking Voltage                                                        | $V_{DC}$        | 40           | 60     | V          |
| Maximum Average Forward Rectified Current                                          | $I_F (AV)$      | 1.0          |        | A          |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | $I_{FSM}$       | 30           |        | A          |
| Typical Junction Capacitance <sup>1)</sup>                                         | $C_i$           | 180          | 80     | pF         |
| Typical Thermal Resistance <sup>(2)</sup>                                          | $R_{\theta JA}$ | 90           |        | °C/W       |
| Operating Junction Temperature Range                                               | $T_j$           | -55~+150     |        | °C         |
| Storage Temperature Range                                                          | $T_{stg}$       | -55~+150     |        | °C         |

Note:

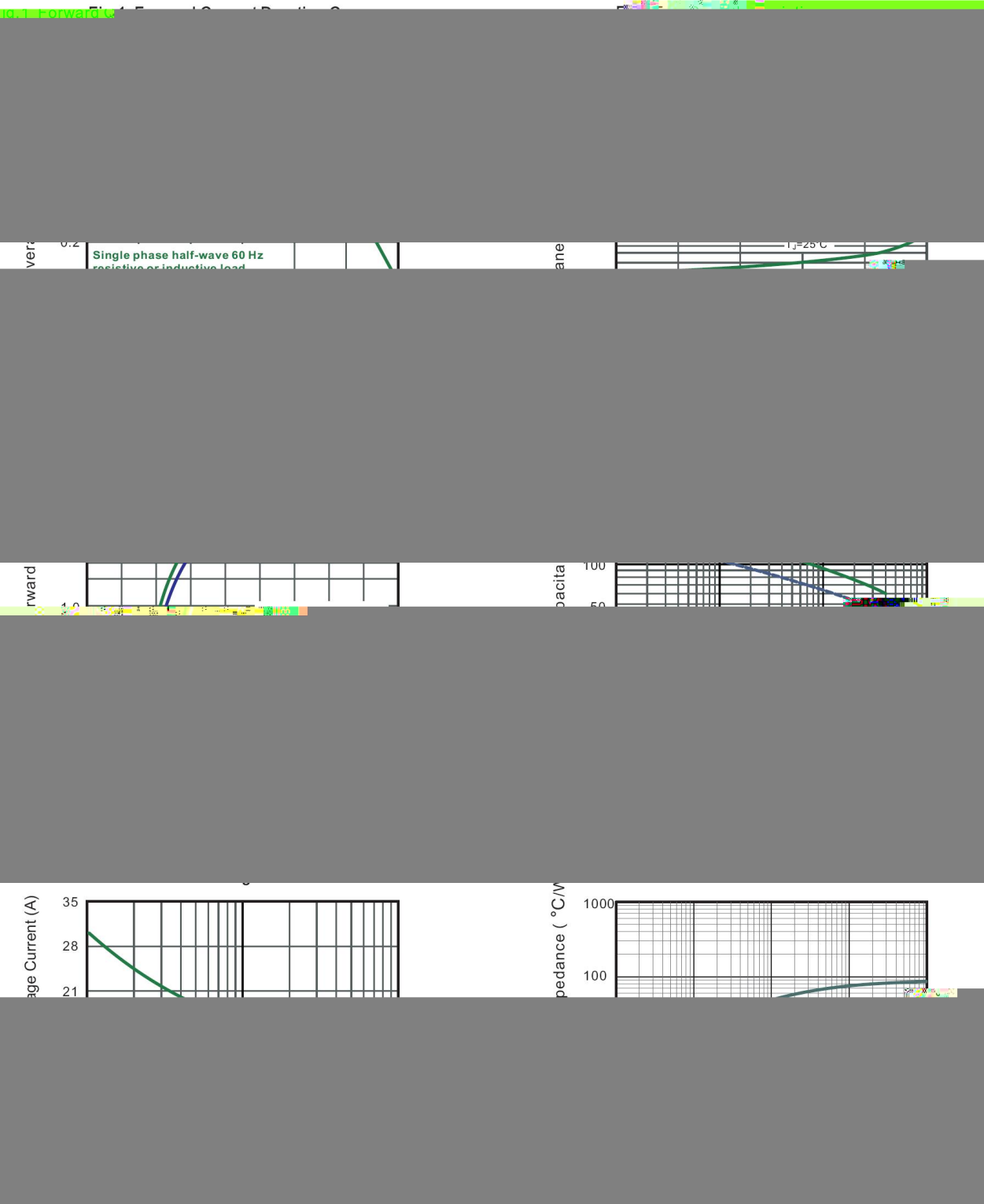
1 ) Measured at 1MHz and applied reverse voltage of 4 V D.C.

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

## / Electrical Characteristics(Ta=25 )

| 参数<br>Parameter                                            | 符号<br>Symbol   | 测试条件<br>Test Conditions | 数值<br>Rating |        | 单位<br>Unit |
|------------------------------------------------------------|----------------|-------------------------|--------------|--------|------------|
|                                                            |                |                         | DSL14W       | DSL16W |            |
| Maximum Instantaneous Forward Voltage                      | V <sub>F</sub> | I <sub>F</sub> =1.0A    | 0.45         | 0.50   | V          |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage | I <sub>R</sub> | T <sub>a</sub> =25℃     | 0.2          |        | mA         |
|                                                            |                | T <sub>a</sub> =100℃    | 5            |        |            |

/ Electrical Characteristic Curve

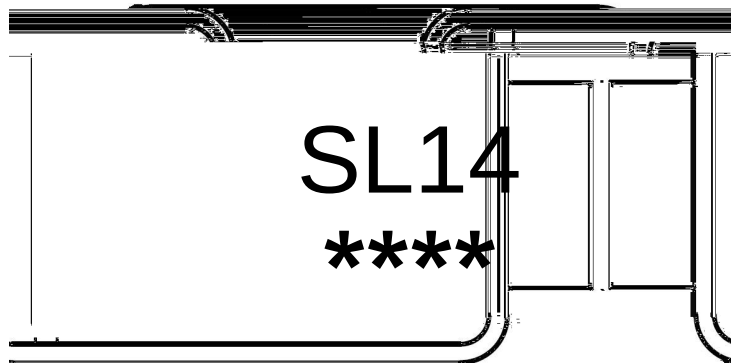


# **DSL14W~DSL16W**

Rev.A Oct.-2020

**DATA SHEET**

/ Marking Instructions



SL14

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1 \*

3 \*

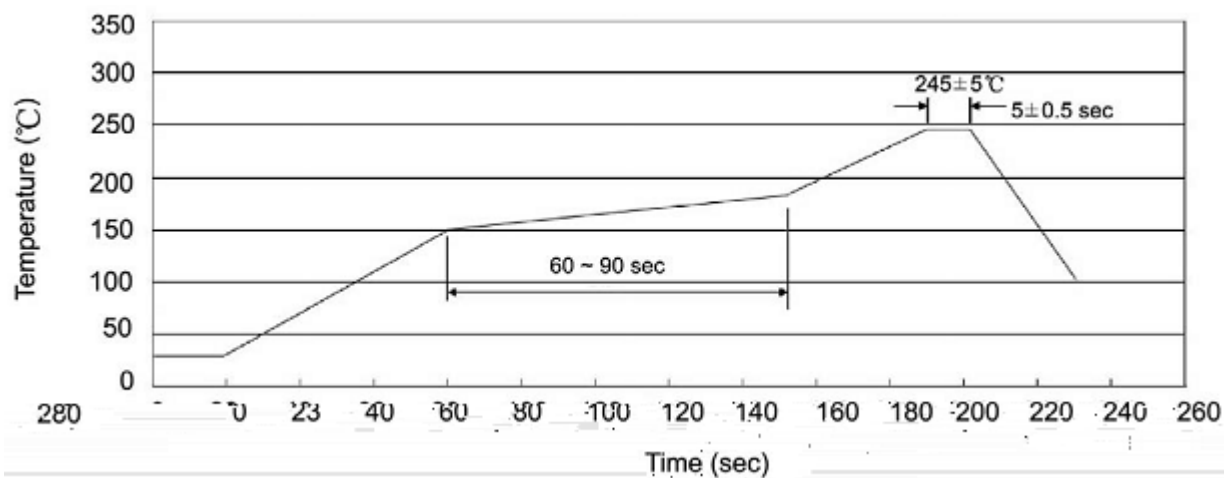
Note:

SL14 Product Type Code

\*\*\*\* Lot No. Code The 1st \* means:YM Code The last 3 \* means:little Lot No Code



## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |             |           |                                          |
|---|-------------|-----------|------------------------------------------|
| 1 | 150 180     | 60 90sec; | 1.Preheating:150~180°C, Time:60~90sec.   |
| 2 | 245±5       | 5±0.5sec; | 2.Peak Temp.:245±5°C, Duration:5±0.5sec. |
| 3 | 2 10°C/sec. |           | 3. Cooling Speed: 2~10°C/sec.            |

## / Resistance to Soldering Heat Test Conditions

260±5°C      10±1 sec.      Temp.:260±5°C      Time:10±1 sec

## / Packaging SPEC.

/ REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| SOD-123FL            | 3000               | 8                       | 24000                  | 5                            | 120000                 | 7" ×8                                   | 185X180X105 | 390X385X205 |

## / Notices