

## FEATURES

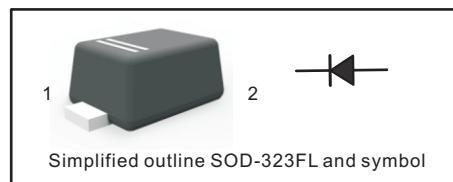
- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives

## MECHANICAL DATA

- Case: SOD-323FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 4.5mg / 0.00016oz

## PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



## Absolute Maximum Ratings at 25 °C

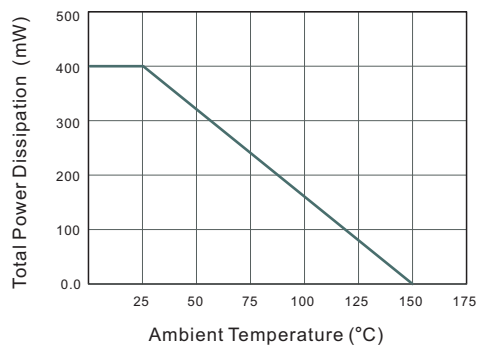
| Parameter                                       | Symbols        | 1N4148WSL  | Units |
|-------------------------------------------------|----------------|------------|-------|
| Maximum Repetitive Peak Reverse Voltage         | $V_{RRM}$      | 100        | V     |
| Maximum RMS voltage                             | $V_{RMS}$      | 75         | V     |
| Continuous Forward Current                      | $I_F$          | 300        | mA    |
| Non-reptitive Peak Forward Surge Current at 1ms | $I_{FSM}$      | 4          | A     |
| Total Power Dissipation                         | $P_{tot}$      | 400        | mW    |
| Operating and Storage Temperature Range         | $T_j, T_{stg}$ | -55 ~ +150 | °C    |

## Characteristics at $T_a = 25\text{ °C}$

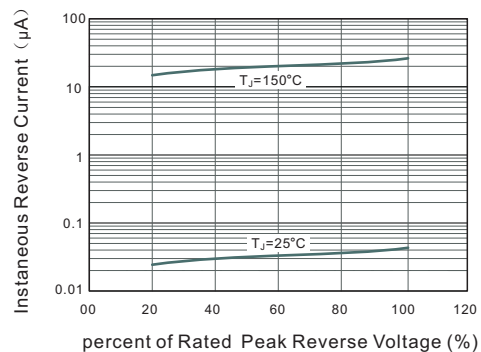
| Parameter                                                                                                                                                                          | Symbols             | 1N4148WSL                      | Units   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|---------|
| Reverse Breakdown Voltage at $I_R = 1\mu A$                                                                                                                                        | $V_{(BR)R}$         | 75                             | V       |
| Maximum Forward Voltage<br>at 1 mA<br>at 10 mA<br>at 50 mA<br>at 150 mA                                                                                                            | $V_F$               | 0.715<br>0.855<br>1.00<br>1.25 | V       |
| Peak Reverse Current<br>at $V_R = 20V$ $T_j = 25\text{ °C}$<br>at $V_R = 75V$ $T_j = 25\text{ °C}$<br>at $V_R = 25V$ $T_j = 150\text{ °C}$<br>at $V_R = 75V$ $T_j = 150\text{ °C}$ | $I_R$               | 0.025<br>1<br>30<br>50         | $\mu A$ |
| Typical Junction Capacitance $f = 1MHz, V_R = 4V$                                                                                                                                  | $C_j$               | 5                              | pF      |
| Maximum Reverse Recovery Time <sup>(1)</sup>                                                                                                                                       | $t_{rr}$<br>Typical | 8                              | ns      |

( 1 ) Measured with  $I_F = 0.5 A$ ,  $I_R = 1 A$ ,  $I_{rr} = 0.25 A$

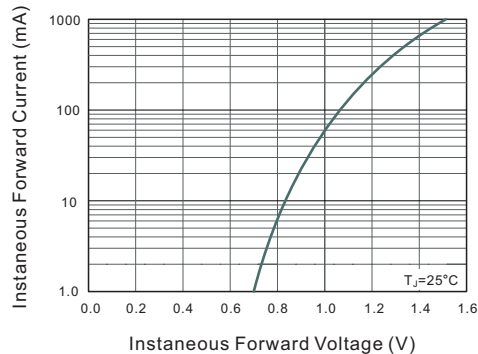
**Fig.1 Power Derating Curve**



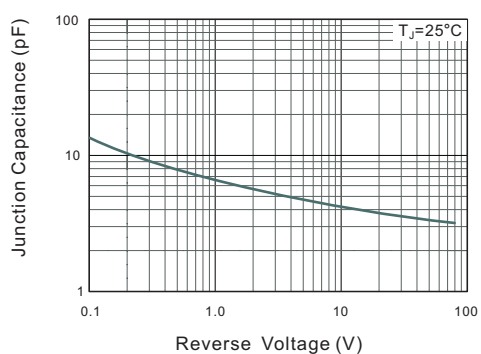
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instantaneous Forward Characteristics**



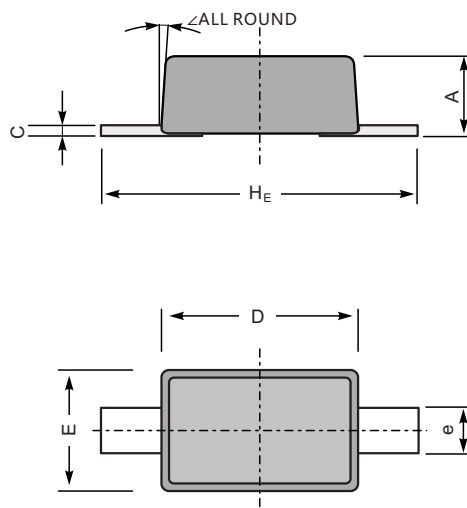
**Fig.4 Typical Junction Capacitance**



## PACKAGE OUTLINE

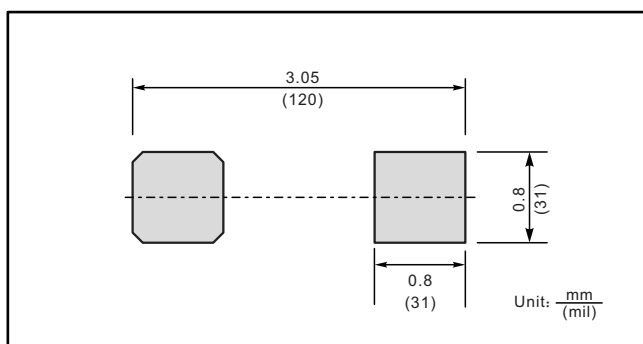
Plastic surface mounted package; 2 leads

SOD-323FL



| UNIT |     | A   | C    | D   | E    | e    | H <sub>E</sub> | ∠  |
|------|-----|-----|------|-----|------|------|----------------|----|
| mm   | max | 1.0 | 0.25 | 1.8 | 1.35 | 0.4  | 2.7            | 8° |
|      | min | 0.8 | 0.05 | 1.6 | 1.15 | 0.25 | 2.3            |    |
| mil  | max | 39  | 9.8  | 71  | 53   | 18   | 106            |    |
|      | min | 31  | 2.0  | 63  | 45   | 10   | 91             |    |

### The recommended mounting pad size



### Marking

| Type number | Marking code |
|-------------|--------------|
| 1N4148WSL   | T4           |