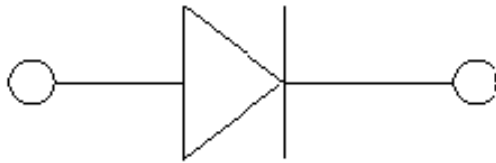


High Speed Switching Diode



Features

- V_R 80V
- I_{FAV} 150mA

Typical Applications

- Extreme fast switches

Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Epoxy meets UL-94 V-0 flammability rating, halogen-free
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A1

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | VALUE |
|--|-----------------|---------------------------|--------------------|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | | 80 |
| Peak forward surge current | I_{FSM} | A | $t_p=1\mu\text{s}$ | 2 |
| Average forward current | I_{FAV} | mA | | 150 |
| Power dissipation | P_D | mW | | 200 |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | $^\circ\text{C}/\text{W}$ | | 625 |
| Junction temperature | T_j | $^\circ\text{C}$ | | -55 to +150 |
| Storage temperature range | T_{stg} | $^\circ\text{C}$ | | -55 to +150 |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | Conditions | MIN | TYP | MAX |
|-----------------------|----------|---------------|---|-----|-----|-----|
| Forward voltage | V_F | V | $I_F=100\text{mA}$ | | | 1.2 |
| Reverse current | I_{R1} | nA | $V_R=80\text{V}$ | | | 100 |
| | I_{R2} | μA | $V_R=80\text{V}, T_a=125^\circ\text{C}$ | | | 1 |
| Breakdown voltage | V_R | V | $I_R=100\mu\text{A}$ | 80 | | |
| Diode capacitance | C_D | pF | $V_R=0\text{V}, f=1\text{MHz}$ | | 4 | 5 |
| Reverse recovery time | t_{rr} | ns | $I_F=10\text{mA}, I_{rr}=0.1I_R, R_L=100\Omega$ | | 65 | 80 |

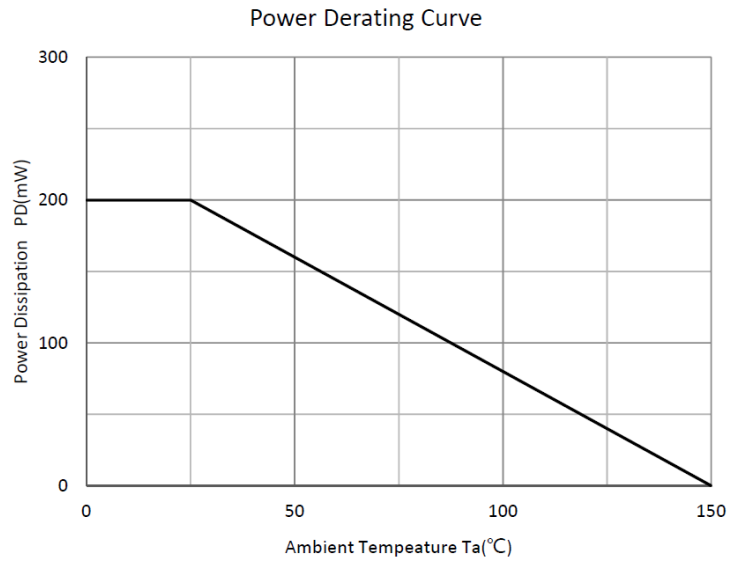
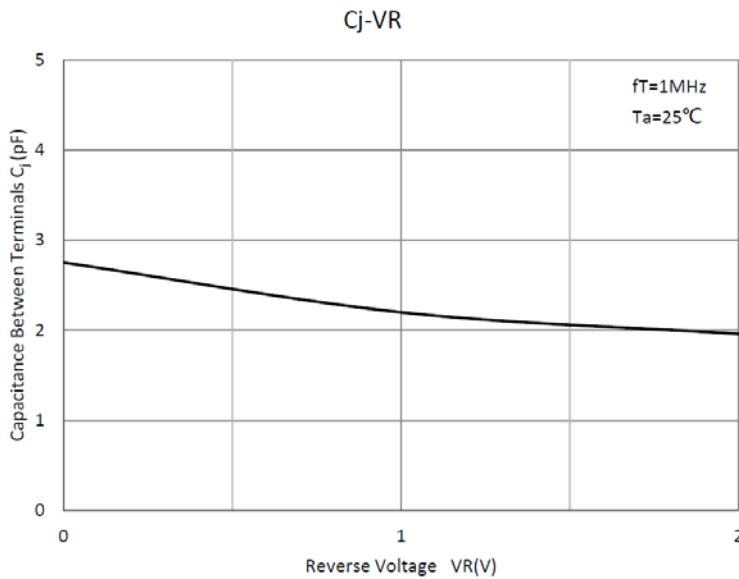
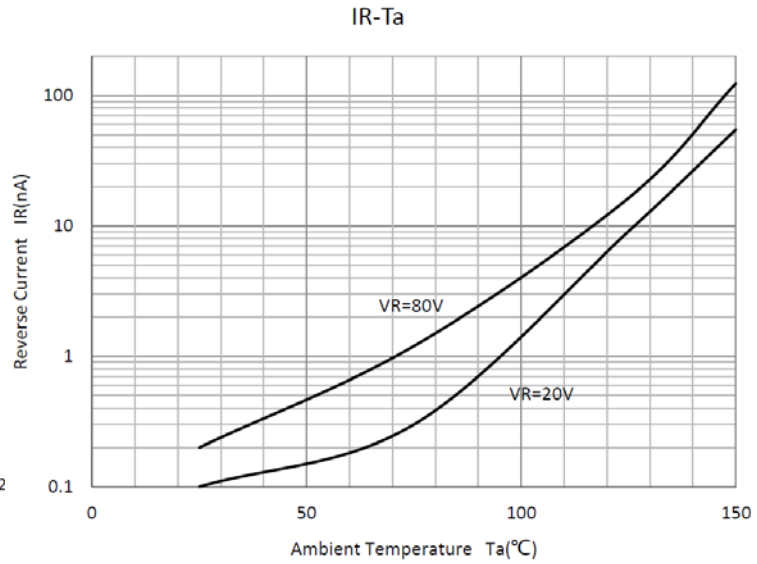
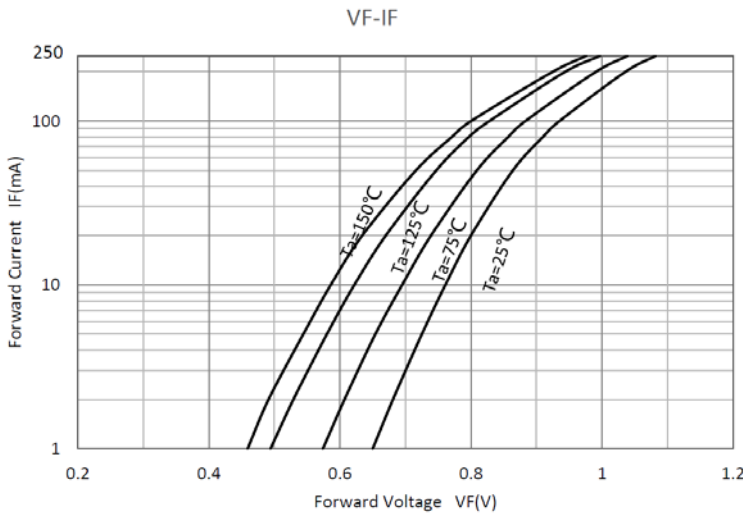


1N4148WSL

Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------|--------------|-------------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4148WSL | F2 | Approximate 0.004 | 3000 | 30000 | 120000 | 7" reel |

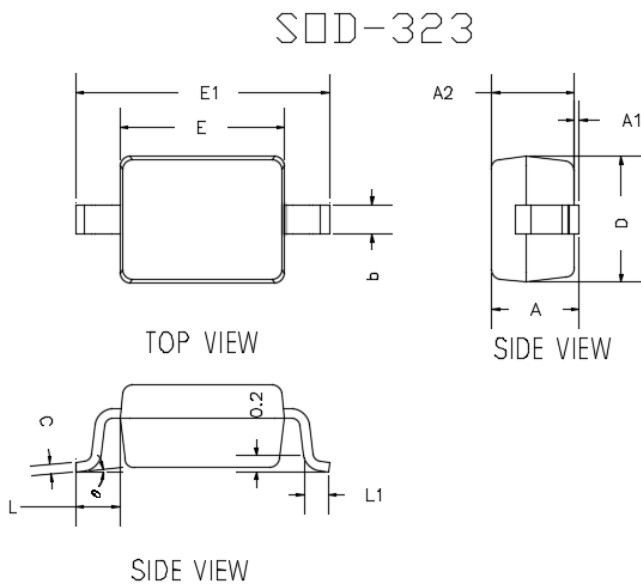
Characteristics (Typical)





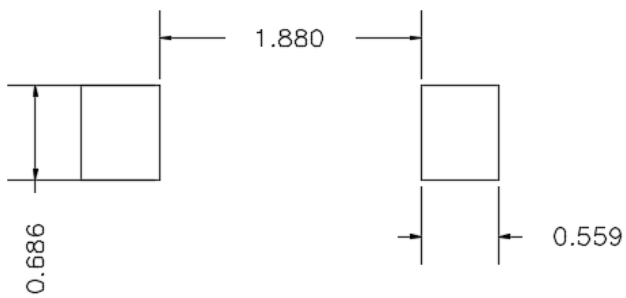
1N4148WSL

■Outline Dimensions



| DIMENSIONS | | | | |
|------------|-----------|--------|----------|--------|
| DIM | INCHES | | MM | |
| | MIN | MAX | MIN | MAX |
| A | --- | 0.0393 | --- | 1.0000 |
| A1 | 0.0000 | 0.0039 | 0.0000 | 0.1000 |
| A2 | 0.0314 | 0.0354 | 0.8000 | 0.9000 |
| b | 0.0098 | 0.0157 | 0.2500 | 0.4000 |
| c | 0.0031 | 0.0059 | 0.0800 | 0.1500 |
| D | 0.0472 | 0.0551 | 1.2000 | 1.4000 |
| E | 0.0629 | 0.0709 | 1.6000 | 1.8000 |
| E1 | 0.0984 | 0.1063 | 2.5000 | 2.7000 |
| L | 0.0187TYP | | 0.475TYP | |
| L1 | 0.0098 | 0.0157 | 0.250 | 0.400 |
| θ | 0° | 8° | 0° | 8° |

■Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.