



# 1N4148GW6

## SURFACE MOUNT SWITCHING DIODES

**Voltage**

**100 V**

**Power**

**410 mW**

**SOT-23 6L**

Unit : inch(mm)

### Features

- Fast switching Speed.
- Electrically identical to standard JEDEC
- High Conductance
- Surface mount package ideally suited for automatic insertion.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std.  
(Halogen Free)

### Mechanical Data

- Case: SOT-23 6L plastic case
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0005 ounces, 0.014 grams
- Marking: DA2

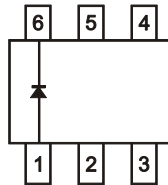
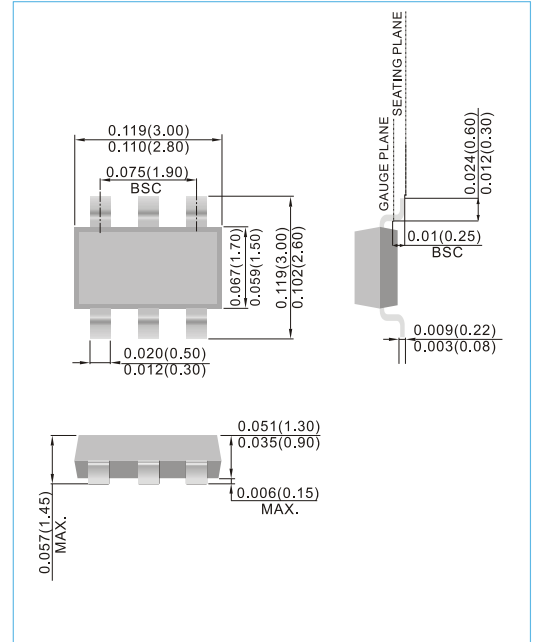


Fig.215(TOP VIEW)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

| PARAMETER   | SYMBOL           | VALUE  | UNIT |
|---|------------------|--|------|
| Reverse Voltage   | V <sub>R</sub>   | 75   | V    |
| Peak Reverse Voltage                                    | V <sub>RM</sub>  | 100  | V    |
| RMS Voltage   | V <sub>RMS</sub> | 50   | V    |
| Maximum DC Blocking Voltage                             | V <sub>DC</sub>  | 75   | V    |
| Maximum Average Forward Current at T <sub>A</sub> =25°C | I <sub>AV</sub>  | 150  | mA   |
| Peak Forward Surge Current, 1μs                         | I <sub>FSM</sub> | 4  | A    |
| Power Dissipation Derate Above 25 °C                    | P <sub>TOT</sub> | 410  | mW   |
| Maximum Forward Voltage                                 | V <sub>F</sub>   | 0.715@0.001A<br>0.855@0.01A<br>1@0.05A<br>1.25@0.15A | V    |



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## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C unless otherwise noted)

| PARAMETER  | SYMBOL           | VALUE                | UNIT |
|--|------------------|----------------------|------|
| Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> =25°C | I <sub>R</sub>   | 0.025@20V<br>2.5@75V | μA   |
| Junction Capacitance (Note 1)  | C <sub>J</sub>   | 1.5                  | pF   |
| Maximum Reverse Recovery Time (Note 2)                                       | T <sub>RR</sub>  | 4                    | ns   |
| Typical Thermal Resistance   | R <sub>θJA</sub> | 450                  | °C/W |
| Operating and Storage Temperature Range                                      | T <sub>J</sub>   | -55 to +150          | °C   |

Note:1.C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ

2.From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6V, R<sub>L</sub>=100Ω

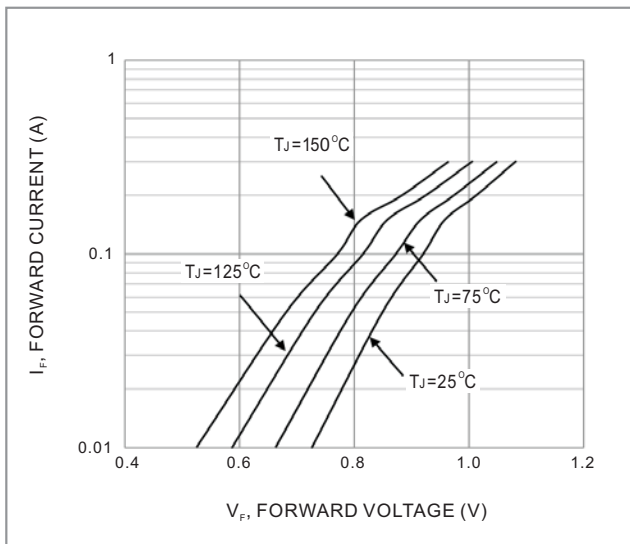


Fig. 1 TYPICAL FORWARD CHARACTERISTICS

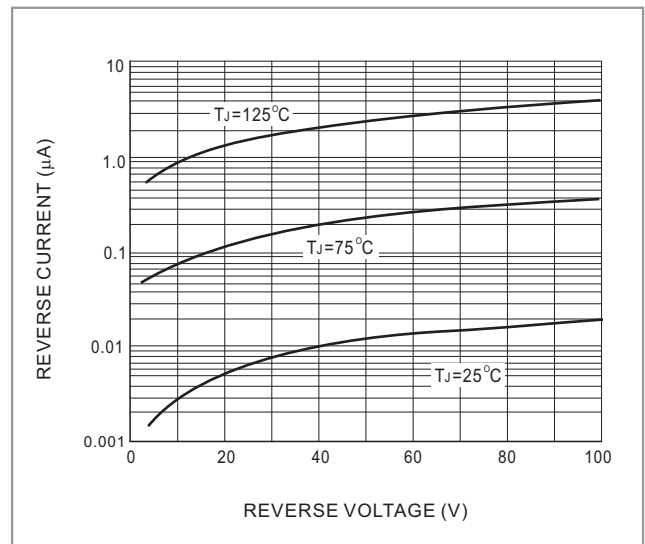


Fig. 2 TYPICAL REVERSE CHARACTERISTICS

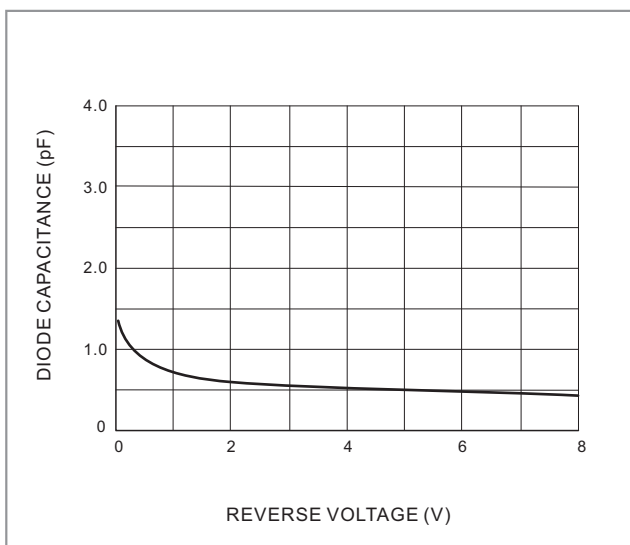


Fig. 3 TYPICAL JUNCTION CAPACITANCE

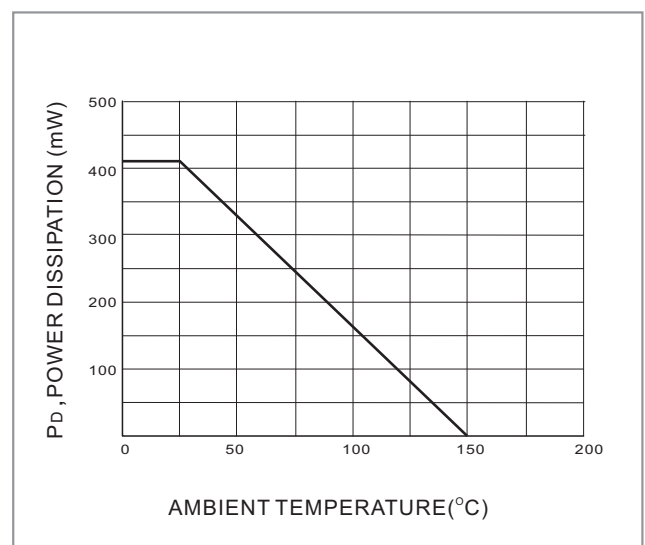
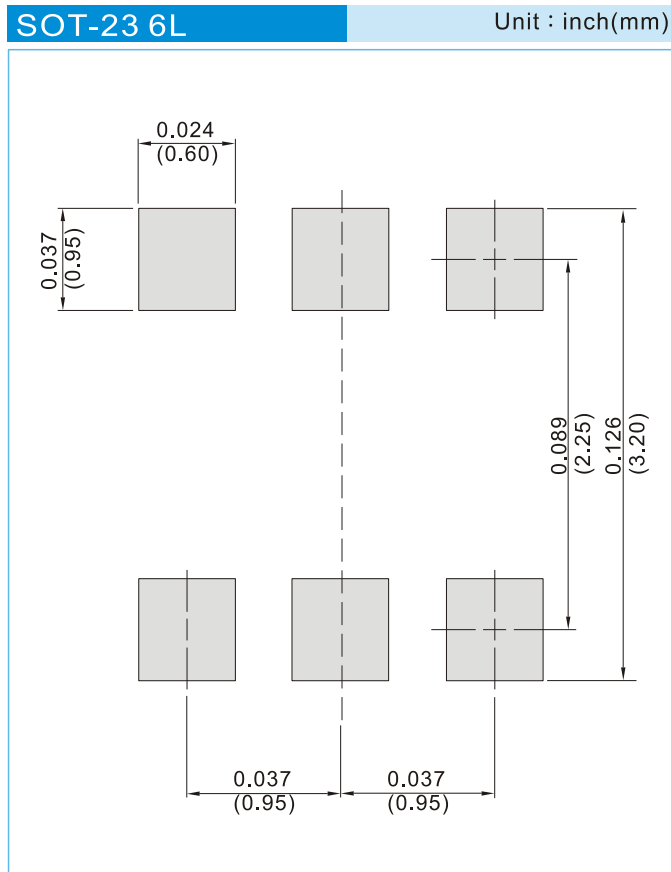


Fig. 4 POWER DERATING CURVE



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R – 10K per 13" plastic Reel  
T/R – 3K per 7" plastic Reel



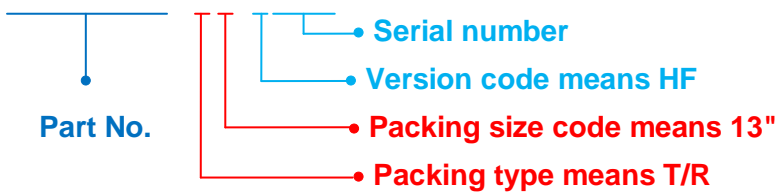
# 1N4148GW6

**Part No\_packing code\_Version**

- 1N4148GW6\_R1\_00001
- 1N4148GW6\_R2\_00001
- 1N4148GW6\_S1\_00001
- 1N4148GW6\_S2\_00001

For example :

**RB500V-40\_R2\_00001**



| Packing Code <b>XX</b>               |                      |                                  |                      | Version Code <b>XXXXX</b> |                      |                                       |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                | 2 <sup>nd</sup> Code | HF or RoHS                | 1 <sup>st</sup> Code | 2 <sup>nd</sup> -5 <sup>th</sup> Code |
| Tape and Ammunition Box (T/B)        | A                    | N/A                              | 0                    | HF                        | 0                    | serial number                         |
| Tape and Reel (T/R)                  | R                    | 7"                               | 1                    | RoHS                      | 1                    | serial number                         |
| Bulk Packing (B/P)                   | B                    | 13"                              | 2                    |                           |                      |                                       |
| Tube Packing (T/P)                   | T                    | 26mm                             | X                    |                           |                      |                                       |
| Tape and Reel (Right Oriented) (TRR) | S                    | 52mm                             | Y                    |                           |                      |                                       |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP (PBCU)   | U                    |                           |                      |                                       |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD) | D                    |                           |                      |                                       |



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