

# 1N4148

## SWITCHING DIODES

**Voltage**

**100 V**

**Power**

**500 mW**

**DO-34**

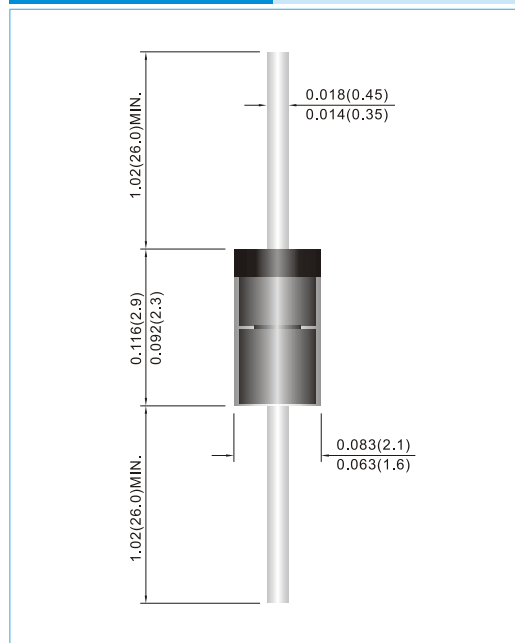
Unit : inch(mm)

### Features

- Fast Switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std. . (Halogen Free).

### Mechanical Data

- Case: Molded Glass DO-34
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.09 grams
- Packing information
  - B - 2K per Bulk box
  - T/R - 10K per 15" plastic Reel
  - T/B - 5K per horiz. tape & Ammo box



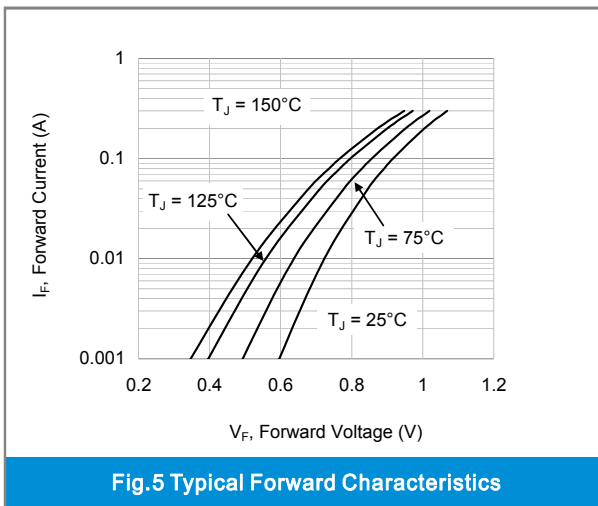
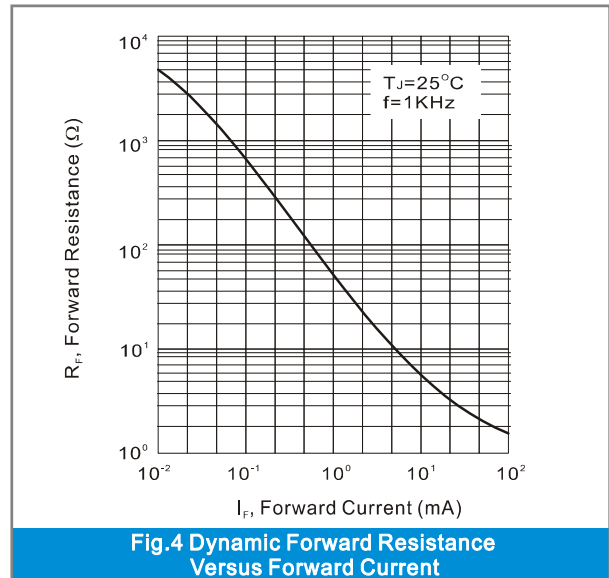
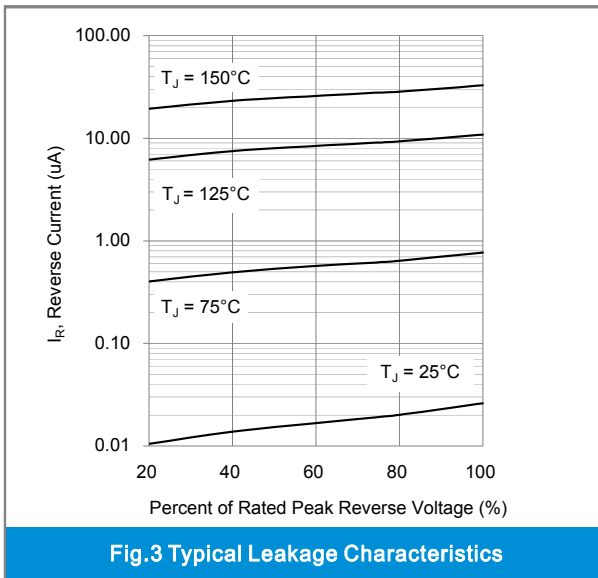
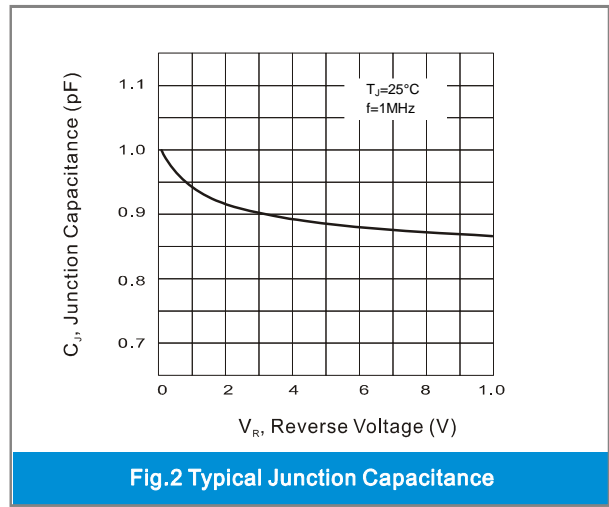
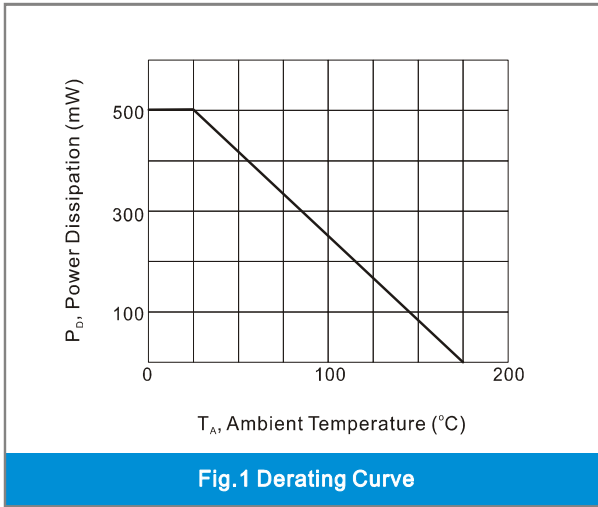
### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER  | SYMBOL          | VALUE         | UNIT                                 |
|--|-----------------|---------------|--------------------------------------|
| Peak Reverse Voltage   | $V_{RM}$        | 100           | V                                    |
| Surge Forward Current at $t<1\text{s}$ and $T_J=25^{\circ}\text{C}$  | $I_{FSM}$       | 500           | mA                                   |
| Power Dissipation at $T_A=25^{\circ}\text{C}$  | $P_{TOT}$       | 500           | mW                                   |
| Forward Continuous current   | $I_F$           | 300           | mA                                   |
| Maximum Forward Voltage at $I_F=10\text{mA}$   | $V_F$           | 1             | V                                    |
| Maximum Leakage Current<br>at $V_R=20\text{V}$<br>at $V_R=75\text{V}$<br>at $V_R=20\text{V}$ , $T_J=150^{\circ}\text{C}$ | $I_R$           | 25<br>5<br>50 | nA<br>$\mu\text{A}$<br>$\mu\text{A}$ |
| Maximum Capacitance at $V_F=V_R=0$   | $C_J$           | 4             | pF                                   |
| Maximum Reverse Recovery Time From<br>$I_F=-I_R=10\text{mA}$ to $I_{RR}=-1\text{mA}$ , $V_R=6\text{V}$ , $R_L=100\Omega$ | $T_{RR}$        | 4             | ns                                   |
| Typical Thermal Resistance   | $R_{\theta JA}$ | 300           | $^{\circ}\text{C/W}$                 |
| Junction Temperature And Storage Temperature Range   | $T_J, T_{STG}$  | -65 to +175   | $^{\circ}\text{C}$                   |

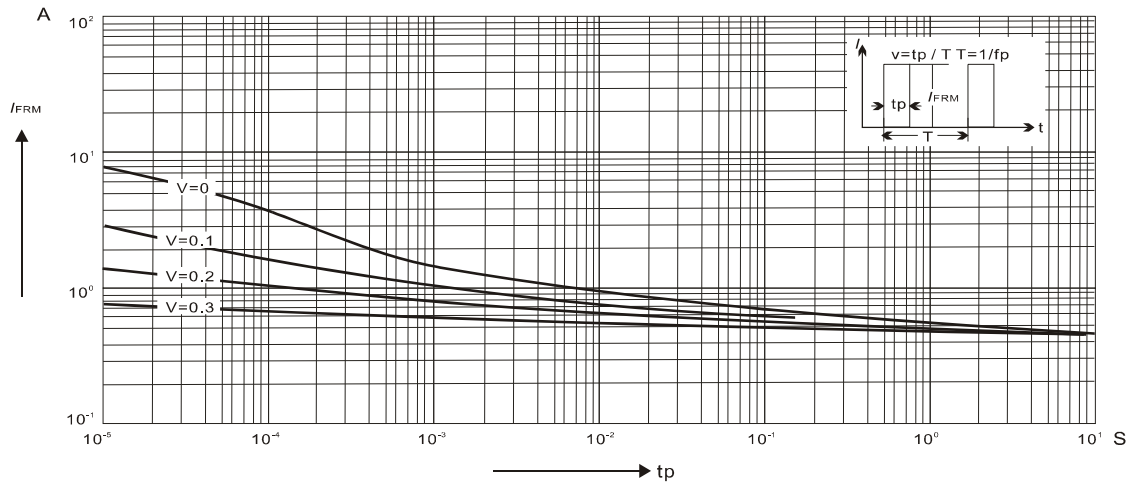
Note : 1.  $C_J$  at  $V_R=0, f=1\text{MHz}$

2. From  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $V_R=6\text{V}$ ,  $R_L=100\Omega$

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**Fig.6 Admissible Repetitive Peak Forward Current Versus Pulse Duration**

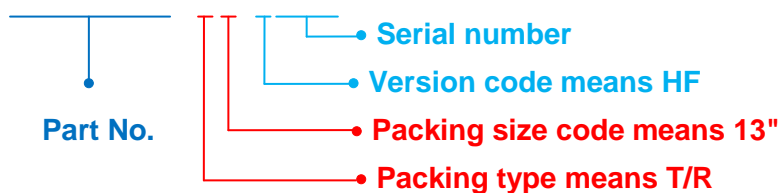
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## Part No\_packing code\_Version

1N4148-34\_AX\_10001  
 1N4148-34\_AY\_10001  
 1N4148-34\_B0\_10001  
 1N4148-34\_R2\_10001

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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