



1N4148W

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volt **POWER** 410mWatt

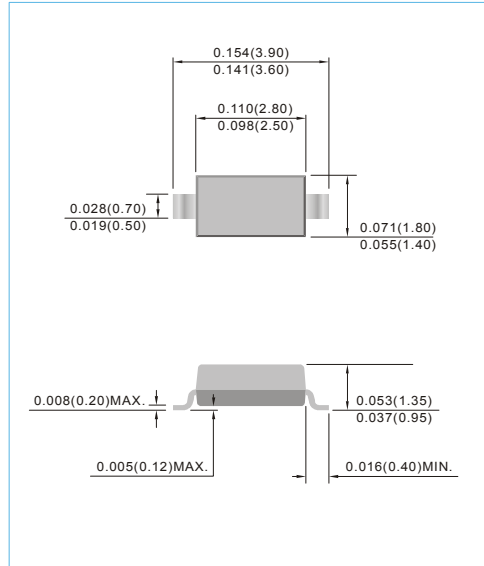
SOD-123 Unit : inch(mm)

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 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: SOD-123 plastic case.
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounce, 0.0103 gram
- Marking Code: A2



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_J=25°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNITS |
|---|--|---|--------|
| Reverse Voltage | V _R | 75 | V |
| Peak Reverse Voltage | V _{RM} | 100 | V |
| RMS Voltage | V _{RMS} | 50 | V |
| Maximum DC Blocking Voltage | V _{DC} | 75 | V |
| Maximum Average Forward Current at T _A =25°C | I _{F(AV)} | 200 | mA |
| Peak Forward Surge Current, 0.001ms | I _{FSM} | 4 | A |
| Power Dissipation Derate Above 25°C | P _{TOT} | 410 | mW |
| Maximum Forward Voltage | V _F | 0.715@1mA 0.855@10mA 1@50mA 1.25@150mA | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T _J = 25°C | I _R | 0.025@20V 2.5@75V | μA |
| Junction Capacitance (Notes 1) | C _J | 1.5 | pF |
| Maximum Reverse Recovery Time (Notes 2) | t _{rr} | 4 | ns |
| Typical Thermal Resistance (Notes 3) | R _{θJA} R _{θJC} R _{θJL} | 450 257 329 | °C / W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | °C |

NOTE :

- 1.CJ at V_R=0, f=1MHZ
- 2.From I_F=10mA to I_R=1mA, V_R=6Volts, R_L=100Ω
- 3.Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.



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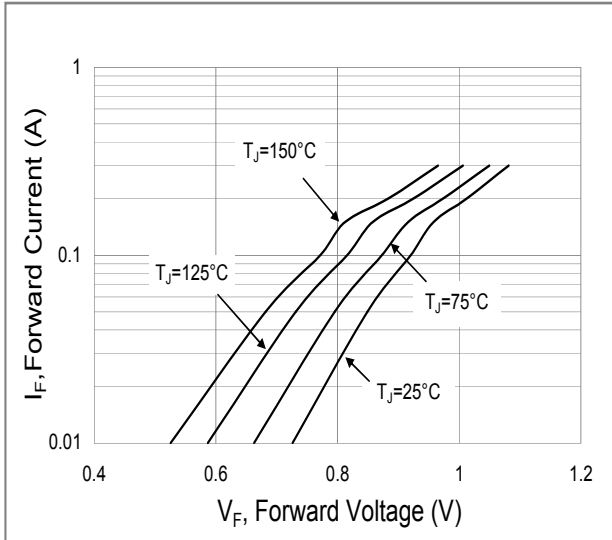


Fig. % Typical Forward Characteristics

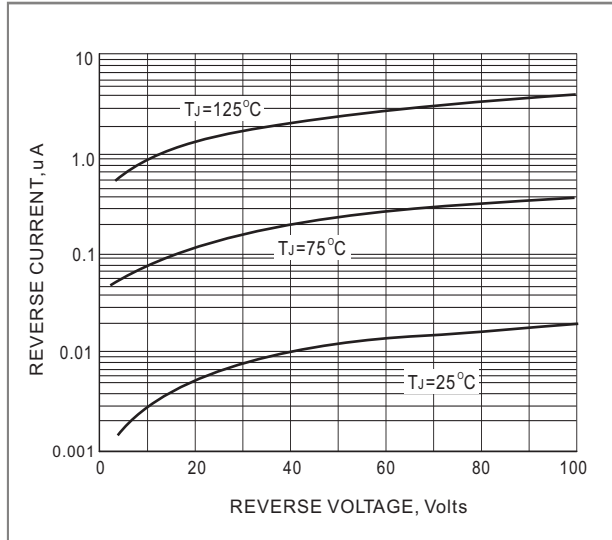


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

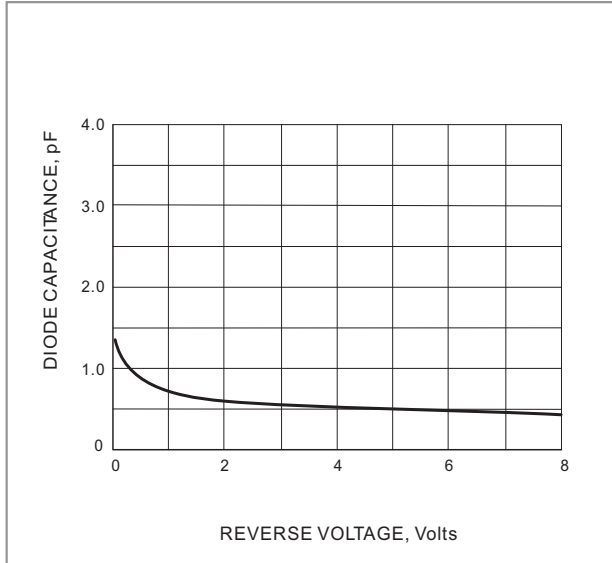


FIG. 3 TYPICAL JUNCTION CAPACITANCE

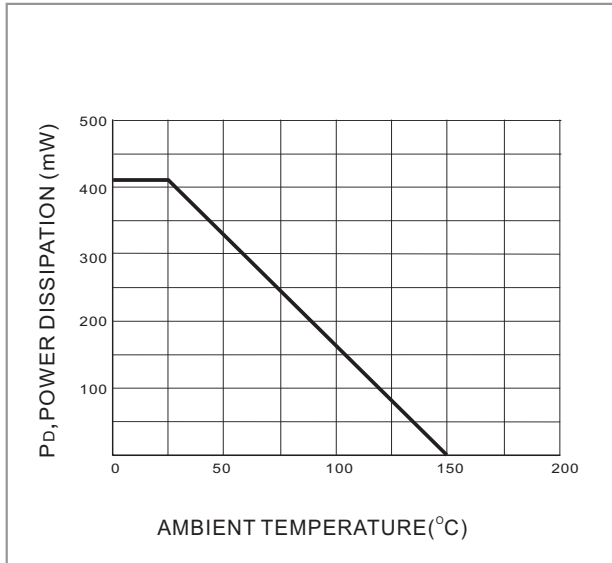
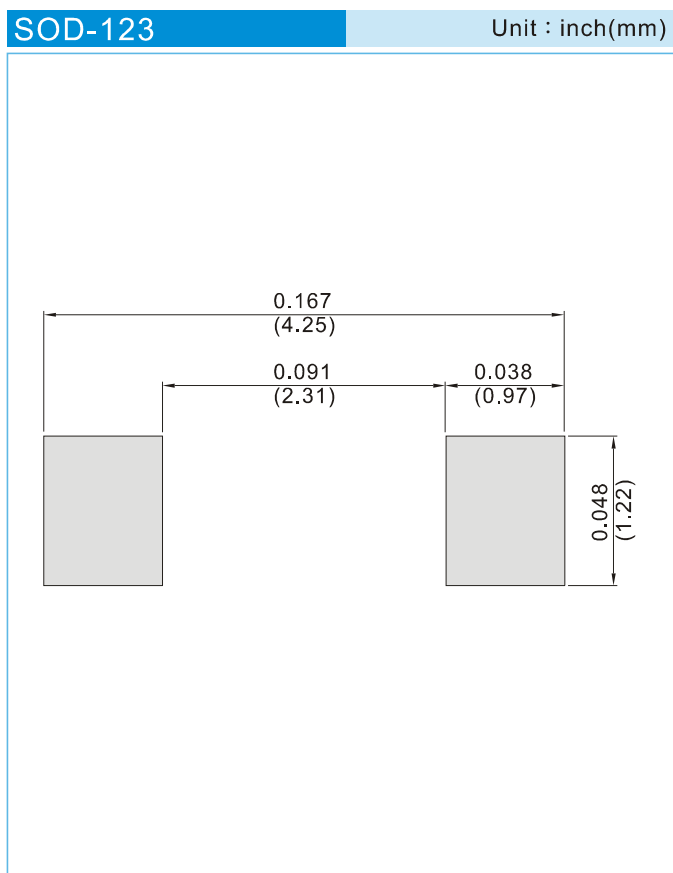


FIG. (POWER DERATING CURVE



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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



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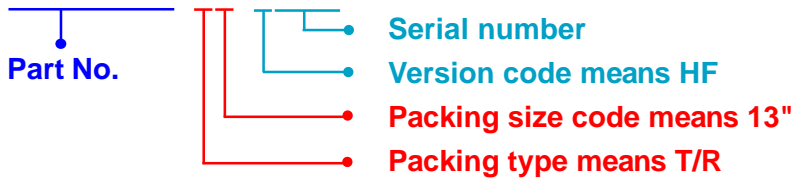
Part No_packing code_Version

1N4148W_R1_00001

1N4148W_R2_00001

For example :

RB500V-40 R2 00001



| Packing Code XX | | | | Version Code XXXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|----------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th 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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