

# Technical Data

## DIODE



### maximum ratings

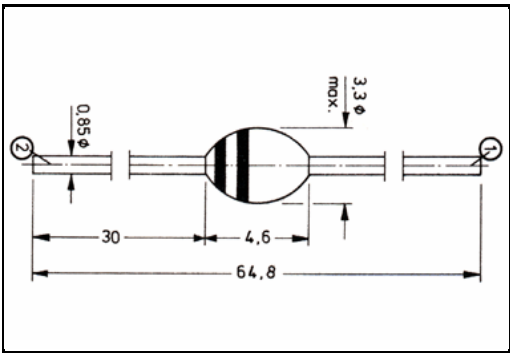
|                                           |       |      |      |                   |
|-------------------------------------------|-------|------|------|-------------------|
| Voltage, Reverse (VR)                     | 600.0 | V    | NO.  | 1N4946-M          |
| Voltage, Reverse Peak (VRM)               | 600.0 | V    | TYPE | FAST-RECOVERY     |
| Current at VR = 0V (IO)                   |       | A    |      |                   |
| Current Average Rectified (IF)            | 1.0   | A    |      |                   |
| Current Surge Peak (IFM)                  |       | A    | CASE | SOD-57            |
| Current, Surge (IFM) at tp = 8.3 ms       | 25.0  | A    |      | MIL-S-19500       |
| Max. Power Dissipation (PT) at TC = 25 °C |       | W    |      | BURN-IN 48h/125°C |
| Max. Thermal Resistance (Rth J-A)         | 40.0  | °C/W |      |                   |
| Max. Junction Temperature (TJ)            | 175.0 | °C   |      |                   |

| PERFORMANCE CHARACTERISTICS at T <sub>c</sub> = 25°C, unless otherwise noted |        |                             |      |       |       |
|------------------------------------------------------------------------------|--------|-----------------------------|------|-------|-------|
| NO.                                                                          | SYMBOL | CONDITIONS                  | MIN. | MAX.  | UNITS |
| 1.                                                                           | IR     | VR = 600.0 V                | -    | 1.0   | µA    |
| 2.                                                                           | IR     | VR = 600.0 V, TA = 150.0° C | -    | 200.0 | µA    |
| 3.                                                                           | VF     | IF = 1.0 A (1)              | -    | 1.3   | V     |
| 4.                                                                           | trr    | IF = 0.5 A, IR = 1.0 A      | -    | 250.0 | ns    |
| 5.                                                                           |        |                             |      |       |       |
| 6.                                                                           |        |                             |      |       |       |
| 7.                                                                           |        |                             |      |       |       |
| 8.                                                                           |        |                             |      |       |       |
| 9.                                                                           |        |                             |      |       |       |
| 10.                                                                          |        |                             |      |       |       |
| 11.                                                                          |        |                             |      |       |       |
| 12.                                                                          |        |                             |      |       |       |
| 13.                                                                          |        |                             |      |       |       |
| 14.                                                                          |        |                             |      |       |       |
| 15.                                                                          |        |                             |      |       |       |
| 16.                                                                          |        |                             |      |       |       |
| 17.                                                                          |        |                             |      |       |       |
| 18.                                                                          |        |                             |      |       |       |
| 19.                                                                          |        |                             |      |       |       |
| 20.                                                                          |        |                             |      |       |       |

Notes

(1)pulse-tested tp ≤ 300 µs, duty cycle ≤ 2 %

DIMENSIONS  
in mm



Marking

Customer

1N4946-M + GREEN DOT

GENERAL PURPOSE