

FAST SWITCHING DIODE

FEATURES

- * Fast Switching Speed.
- * Surface Mount Package Ideally Suited For Automatic Insertion.
- * Silicon Epitaxial Planar Construction.
- * Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

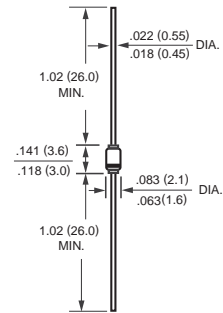
- * Case : Molded Glass DO-35
- * Terminals : Solderable per MIL-STD-750, Method 2026

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.



DO-35



*Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | 1N4151 | UNITS |
|--|-----------------|--------------|---------------|
| Peak Reverse Voltage | V_{RM} | 75 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | Volts |
| Maximum Average Forward Current at $f > 50\text{Hz}$ | $I_{F(AV)}$ | 150 | mAmps |
| Surge Forward Current at $t < 1\text{s}$ | I_{FSM} | 500 | mAmps |
| Typical Current Squared Time | I^2T | 0.125 | A^2S |
| Typical Reverse Recovery Time($I_F=I_R=10\text{mA}, I_{rr}=0.1I_R, R_L=100$) | T_{rr} | 2 | nS |
| Typical Junction Capacitance($V_R=0V, f=1\text{MHz}$) | C_J | 4 | pF |
| Power Dissipation | P_{tot} | 500 | mW |
| Typical Maximum Thermal Resistance | $R_{\theta JA}$ | 350 | $^{\circ}C/W$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -65 to + 175 | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | 1N4151 | UNITS |
|--|--------|--------|-------|
| Maximum Instantaneous Forward Voltage @ $I_F=50\text{mA}$ | V_F | 1.0 | Volts |
| Maximum Instantaneous Reverse Current @ $T_J=25^{\circ}C$ | I_R | 50 | nAmps |
| $V_R=50V$ @ $T_J=150^{\circ}C$ | | 50 | uAmps |

RATING AND CHARACTERISTICS CURVES (1N4151)

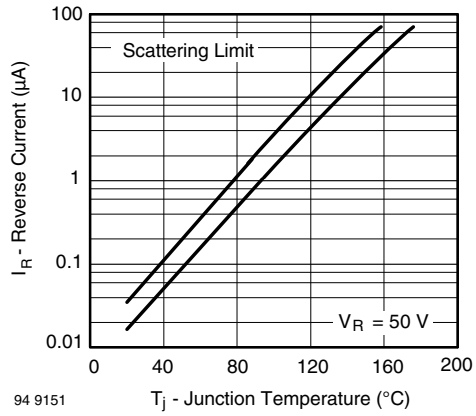


Fig. 1 - Reverse Current vs. Junction Temperature

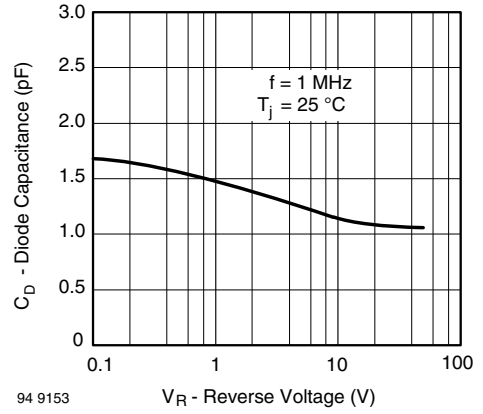


Fig. 3 - Diode Capacitance vs. Reverse Voltage

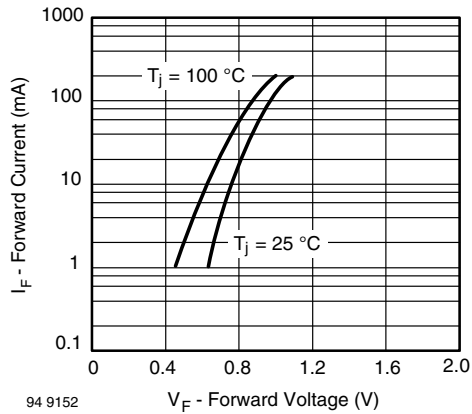


Fig. 2 - Forward Current vs. Forward Voltage

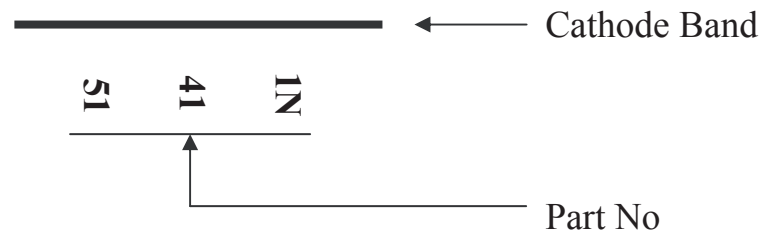


Attachment information about 1N4151

1. Internal Circuit



2. Marking on the body



PACKAGING OF DIODE

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|---------------------|------------------|---------------|------------------|
| DO-35 | -B | 10,000 | 240*100*100 | 410*350*275 | 120,000 | 21.5 |

REEL PACK

| PACKAGE | PACKING CODE | REEL (EA) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|------------------|---------------|------------------|
| DO-35 | -T | 10,000 | 5.0 | 52 | 356 | 380*380*420 | 50,000 | 11.00 |

AMMO PACK

| PACKAGE | PACKING CODE | REEL (EA) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON (EA) | GROSS WEIGHT (Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|-----------------|---------------|-------------------|
| DO-35 | -F | 5,000 | 5.0 | 52 | 250*80*80 | 410*260*340 | 100,000 | 20.00 |

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