

# 1N4148

## SWITCHING DIODES

**VOLTAGE** 100 Volts **POWER** 500 mWatts

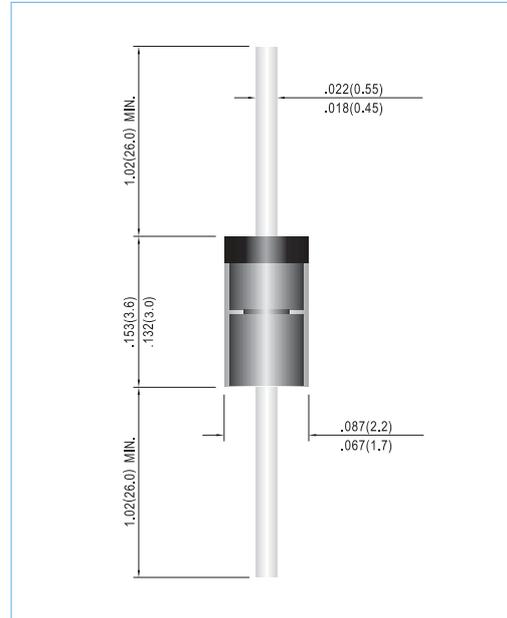
### FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Axial lead Package Ideally Suited for Automatic Insertion.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded Glass DO-35
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.13 grams
- Mounting Position: Any
- Ordering information: Suffix : " -35 " to order DO-35 Package
- Packing information
  - B - 2K per Bulk box
  - T/R - 10K per 13" plastic Reel
  - T/B - 5K per horiz. tape & Ammo box

DO-35 Unit: inch ( mm )



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

PARAMETER	SYMBOL	1N4148	UNITS
Peak Reverse Voltage	V <sub>RM</sub>	100	V
Maximum Average Forward Current at T <sub>a</sub> =25 °C And f ≥50Hz	I <sub>F(AV)</sub>	150	mA
Surge Forward Current at t < 1s and T <sub>J</sub> = 25 °C	I <sub>FSM</sub>	500	mA
Power Dissipation at Tamb= 25 °C	P <sub>TOT</sub>	500	mW
Maximum Forward Voltage at I <sub>F</sub> =10mA	V <sub>F</sub>	1.0	V
Maximum Leakage Current at V <sub>R</sub> =20V at V <sub>R</sub> =75V at V <sub>R</sub> =20V ,T <sub>J</sub> = 150°C	I <sub>R</sub>	25 5 50	nA μA μA
Maximum Capacitance at V <sub>F</sub> =V <sub>R</sub> =0	C <sub>J</sub>	4	pF
Maximum Reverse Recovery Time From I <sub>F</sub> =-I <sub>R</sub> =10mA to I <sub>RR</sub> =-1mA ,V <sub>R</sub> =6V R <sub>L</sub> =100 Ω	t <sub>rr</sub>	4	ns
Typical Thermal Resistance	R <sub>θJA</sub>	300	°C / W
Junction Temperature and Storage Temperature Range	T <sub>J</sub> ,T <sub>S</sub>	-65 to +175	°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>=6Volts, R<sub>L</sub>=100Ω

1N4148

RATING AND CHARACTERISTIC CURVES

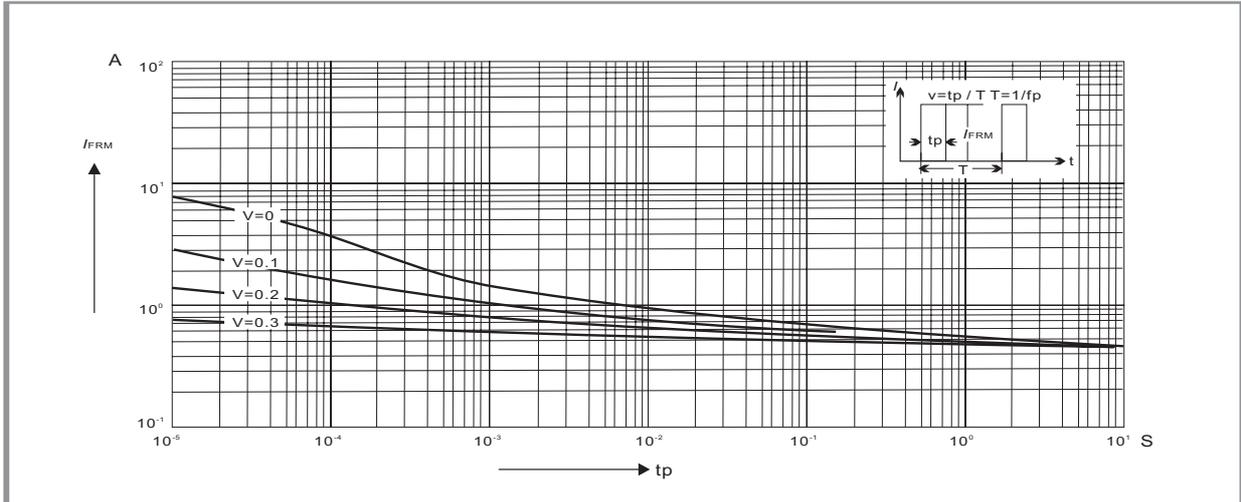


Fig.1 ADMISSIBLE REPETITIVE PEAK FORWARD CURRENT VERSUS PULSE DURATION

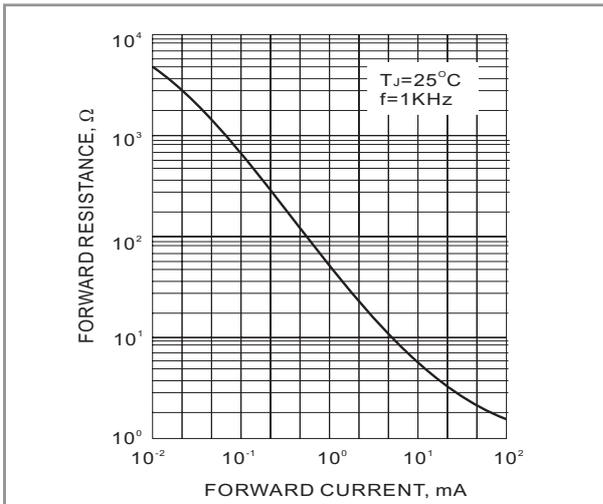


Fig.2-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

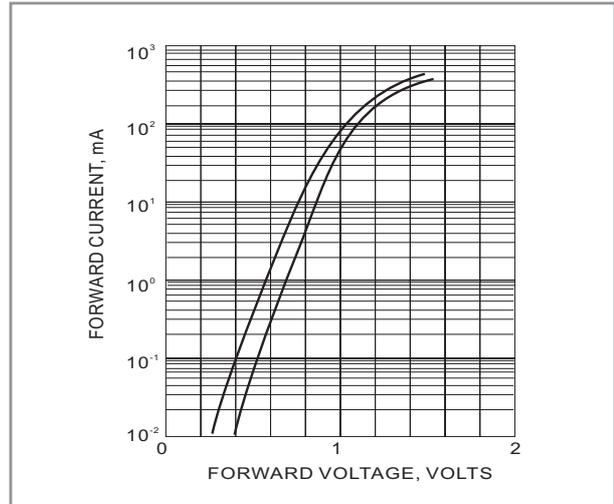


Fig.3 FORWARD CHARACTERISTICS

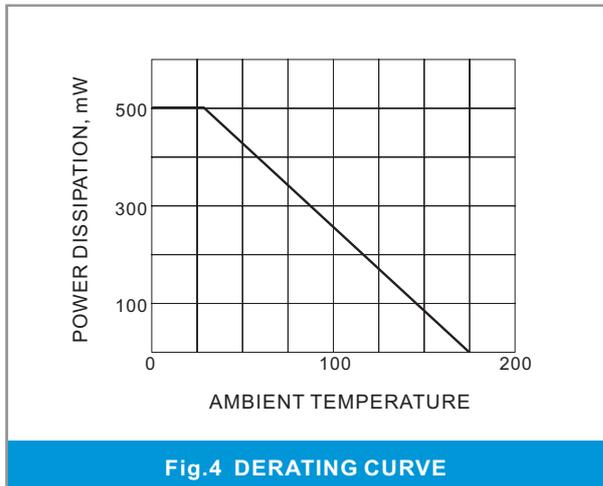


Fig.4 DERATING CURVE

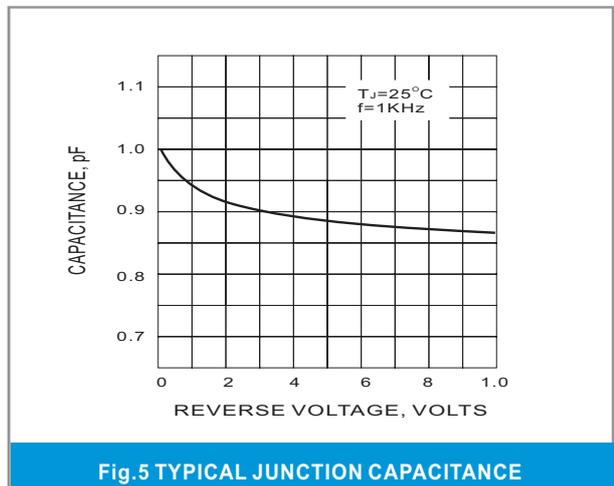


Fig.5 TYPICAL JUNCTION CAPACITANCE