

# 1N4148

## SMALL SIGNAL SWITCHING DIODES

### DO-35(GLASS)

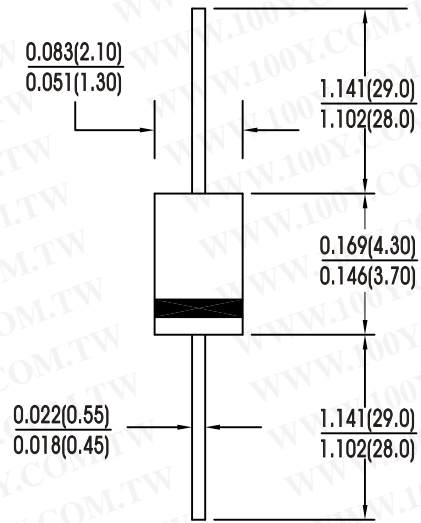
#### FEATURES:

- Fast switching diodes
- 0.5W power dissipation

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

#### MECHANICAL DATA

Case: DO-35 case  
 Polarity : Color band denotes cathode end  
 Weight : Approx 0.13 gram



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temp. unless otherwise specified.

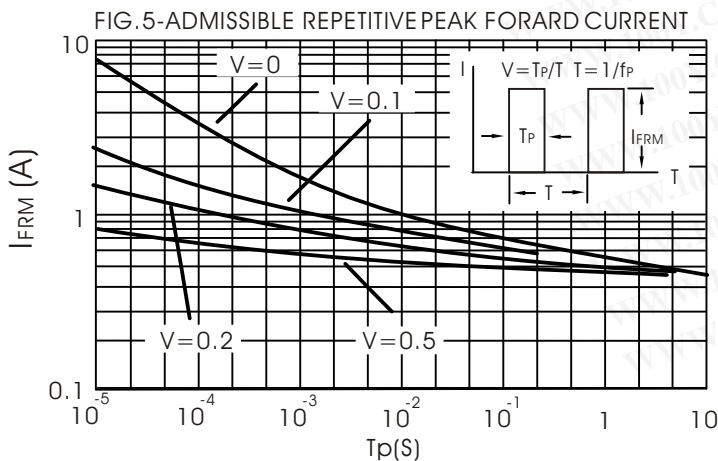
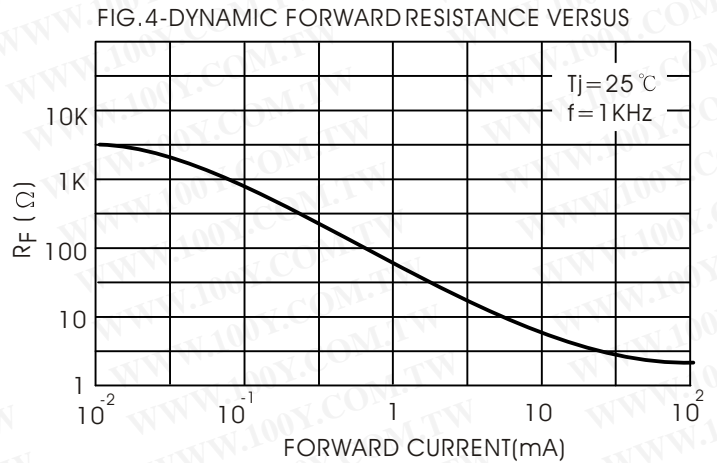
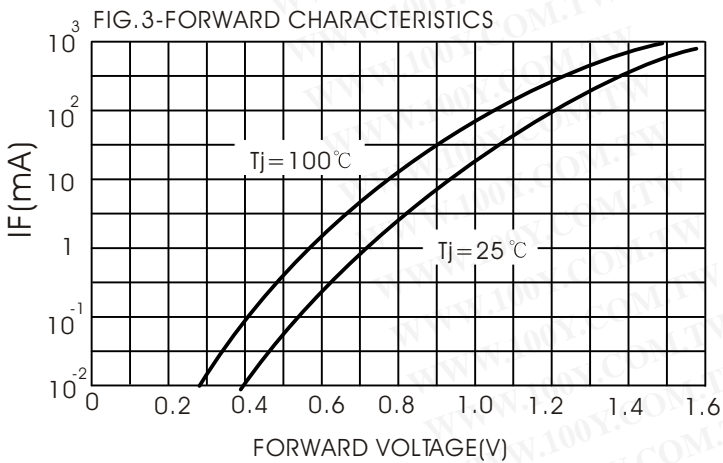
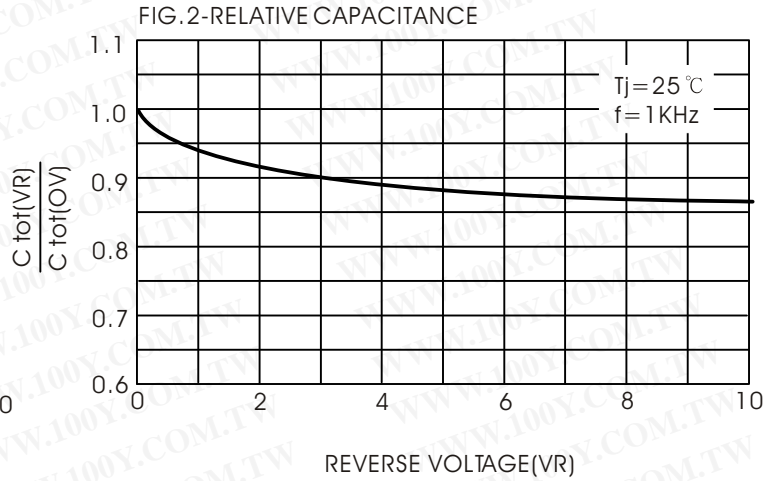
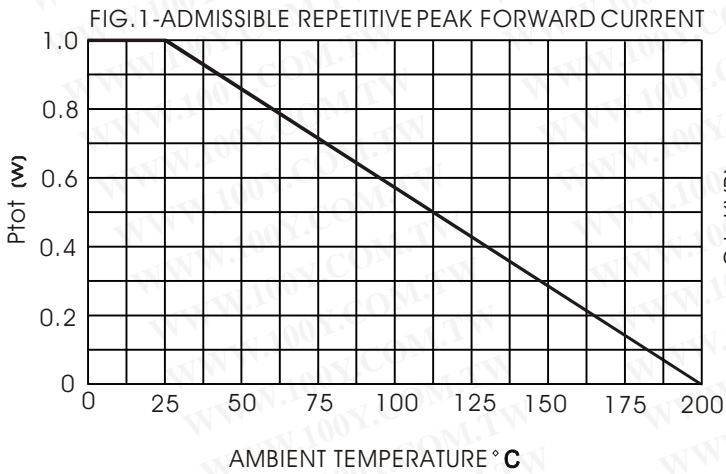
Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	1N4148	Units
Maximum peak reverse voltage	$V_{RM}$	100	Volts
Reverse voltage	$V_R$	75	Volts
Maximum average forward rectified current half wave rectification with resistive load at $T_{amb}=25^{\circ}C$ and $f \geq 50Hz$	$I_{O(AV)}$	150 <sup>1)</sup>	mA
Peak forward surge current < 1S and $T_j=25^{\circ}C$	$I_{FSM}$	500 <sup>1)</sup>	mA
Power dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	500	mW
Maximum forward voltage $I_F=10mA$	$V_F$	1.0	Volts
Maximum leakage current At $V_R=20V / 25^{\circ}C$ $V_R=75V / 25^{\circ}C$ $V_R=20V / 150^{\circ}C$	$I_R$	0.025 5 50	$\mu A$ $\mu A$ $\mu A$
Minimum reverse breakdown voltage tested with 100 $\mu S$ pulses	$V_{(BR)R}$	100	Volts
Capacitance at $V_F=V_R=0$ (Note 1)	$C_{TOT}$	4	Pf
Voltage rise when switching on tested with 50mA forward pulses $T_p=0.1\mu s$ . Rise time < 30ns. $F_p=5 \sim 100KHz$	$V_{FR}$	2.5	Volts
Reverse recovery time from $I_F=-I_R=10mA$ to $I_{RR}=-1mA$ , $V_R=6V$ $R_L=100\Omega$	$T_{RR}$	4	ns
Maximum thermal resistance from junction to ambient	$R_{th-JA}$	350 <sup>1)</sup>	K/mW
Minimum Rectification efficiency at $f=100MHz$ , $v_{rf}=2V$	$\eta_V$	0.45	
Junction temperature	$T_J$	200	$^{\circ}C$
Storage temperature range	$T_{Stg}$	-65 to +200	$^{\circ}C$

1): Valid provided that leads at a distance of 8mm from case are kept at ambient temperature (DO-35)

# RATINGS AND CHARACTERISTIC CURVES 1N4148



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