



# 1N4148 / 1N4448 / 1N914B

## FAST SWITCHING DIODES

**FORWARD CURRENT:** 150 mA PER AMPERE

### FEATURES

- Fast Switching Device (TRR <4.0 nS)
- Hermetically Sealed Glass
- Compression Bonded Construction

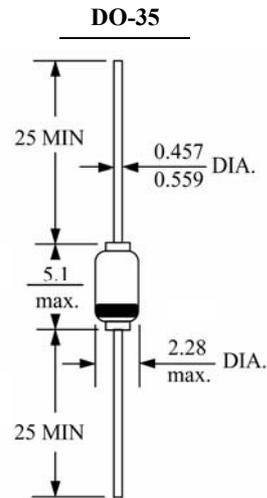
### MECHANICAL DATA

Case: Molded glass DO-35

Lead: Axial leads, solderable per MIL-STD-202,  
method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any



Dimensions in inchs and (millimeters)

### Absolute Maximum Ratings

Tamb = 25 °C, unless otherwise specified

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	500	mW
Working Inverse Voltage	$W_{IV}$	75	V
Average Rectified Current	$I_O$	150	mA
Non-repetitive Peak Forward Current	$I_{FM}$	450	mA
Peak Forward Surge Current(Pulse Width = 1.0 μsecond)	$I_{FSURGE}$	2	A
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-65 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

### Electrical Characteristics

Tamb = 25 °C, unless otherwise specified

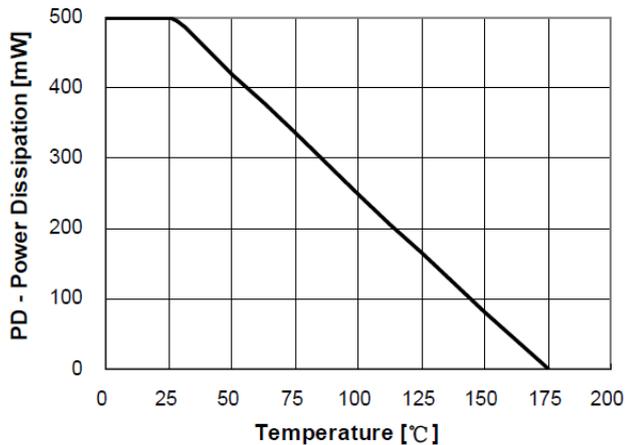
Parameter	Symbol	Min.	Max.	Units	
Breakdown Voltage	$B_V$	$I_R=100\mu A$	100	-	V
		$I_R=5\mu A$	75	-	
Reverse Leakage Current	$I_R$	$V_R=20V$	-	25	nA
		$V_R=75V$	-	5	μA
Forward Voltage	$V_F$	$I_F=5mA$ 1N4448, 1N914B	0.62	0.72	V
		$I_F=10mA$ 1N4148	-	1.0	
		$I_F=100mA$ 1N4448, 1N914B	-	1.0	
Reverse Recovery Time	$T_{RR}$	-	4.0	nS	
Capacitance	$C$	-	4.0	pF	



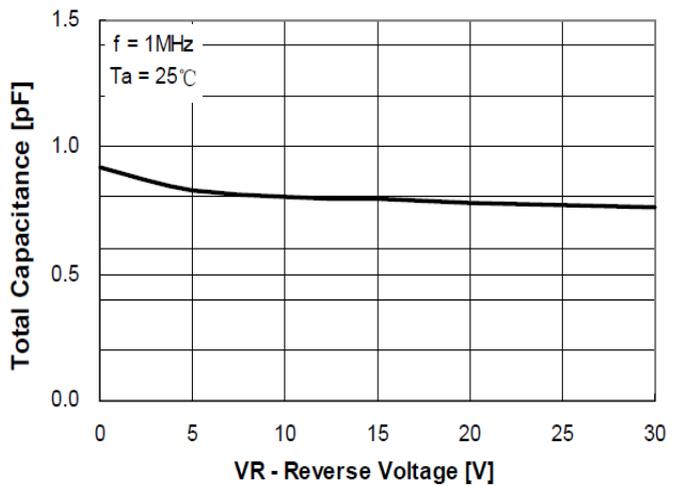
# 1N4148 / 1N4448 / 1N914B

## FAST SWITCHING DIODES

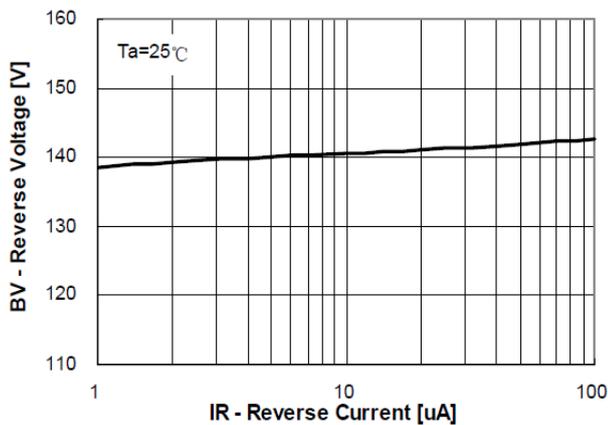
### RATINGS AND CHARACTERISTIC CURVES



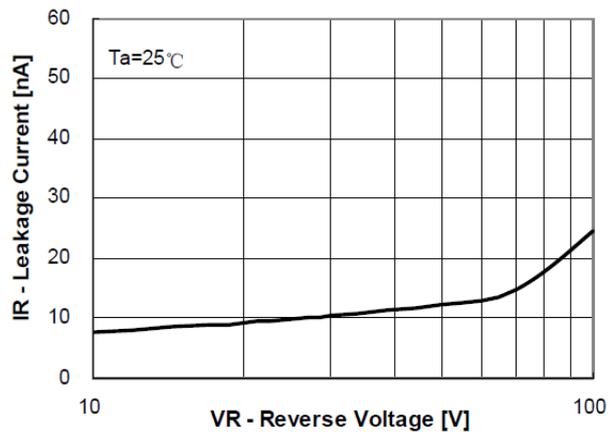
**Figure 1. Power Dissipation vs Ambient Temperature**  
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature



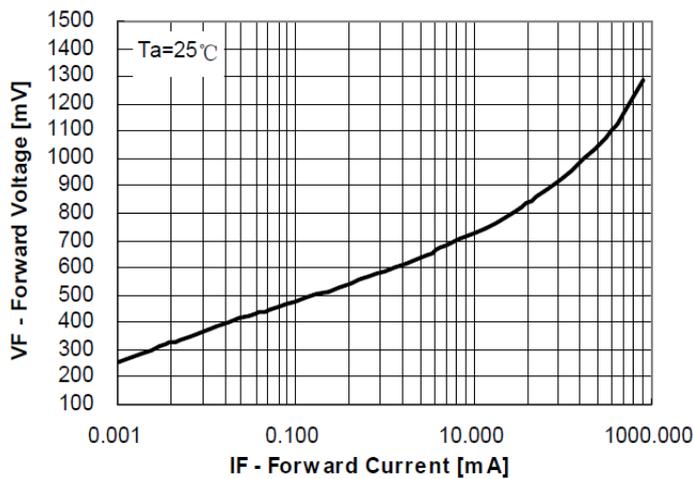
**Figure 2. Total Capacitance**



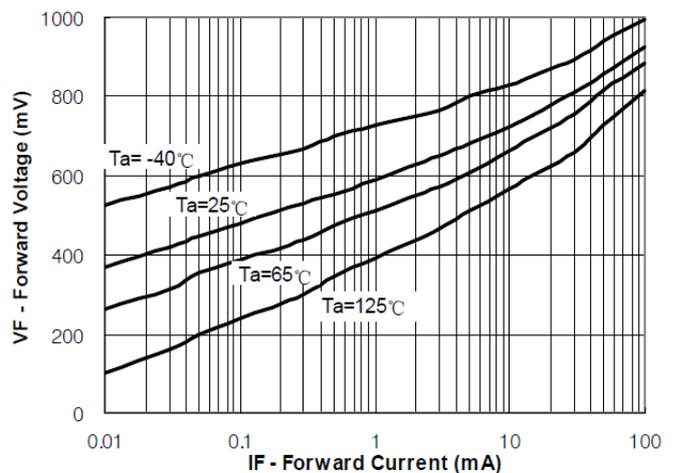
**Figure 3. Reverse Voltage vs Reverse Current**  
BV – 1.0uA to 100uA



**Figure 4. Reverse Current vs Reverse Voltage**  
IR – 10V to 100V



**Figure 5. Forward Voltage vs Forward Current**  
VF – 0.001mA to 800mA



**Figure 6. Forward Voltage vs Ambient Temperature**  
VF – 0.01mA to 100mA (-40 to +125 Deg C)