

1N4148 / 1N4448 / 1N914B

FAST SWITCHING DIODES

FORWARD CURRENT: 150 mA

FEATURES

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

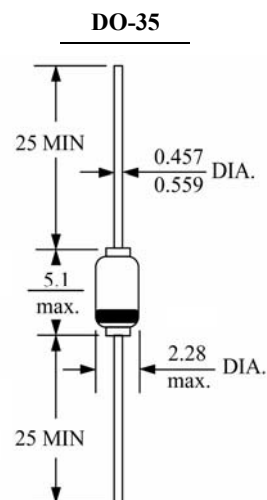
MECHANICAL DATA

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 inches 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	-	V
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	V
		$I_F=100mA$ 1N4448, 1N914B	-	1.0	V
Reverse Recovery Time	T_{RR}	-	4.0	nS	
Capacitance	C	-	4.0	pF	

RATINGS AND CHARACTERISTIC CURVES

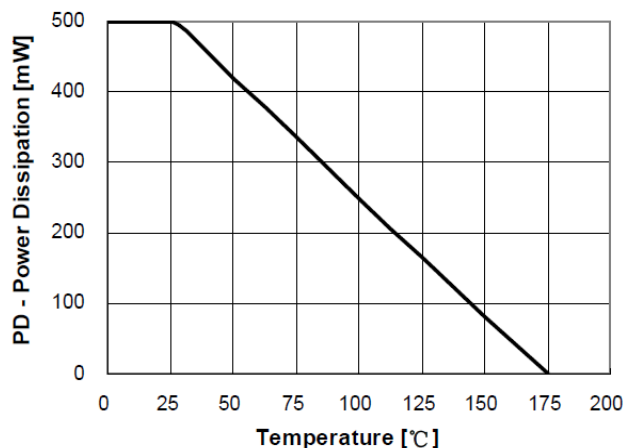


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

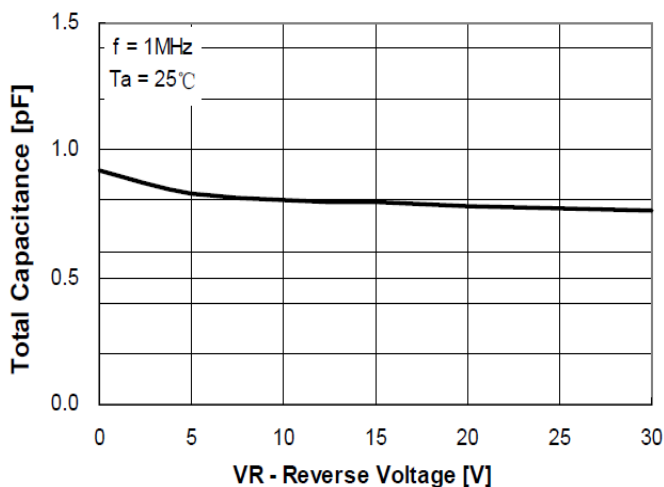


Figure 2. Total Capacitance

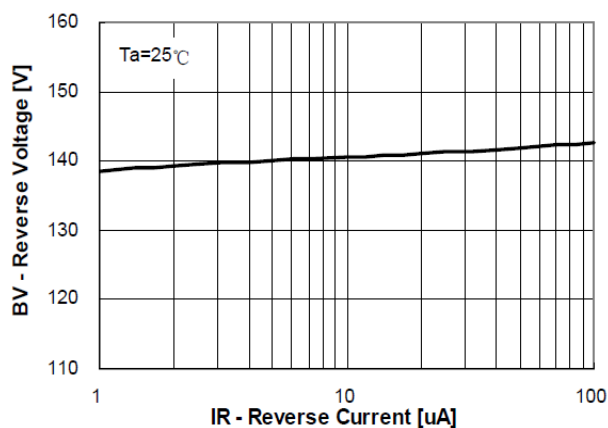


Figure 3. Reverse Voltage vs Reverse Current
BV – 1.0uA to 100uA

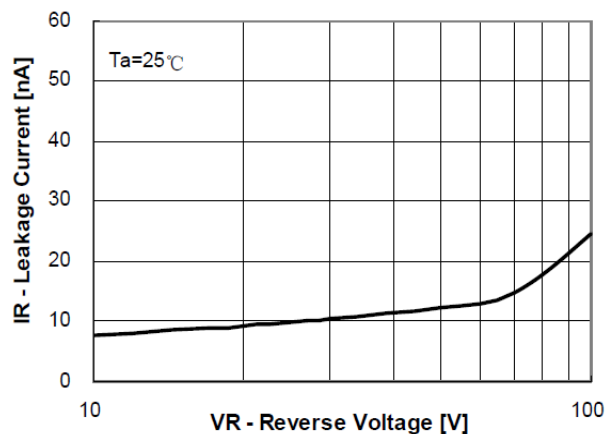


Figure 4. Reverse Current vs Reverse Voltage
IR – 10V to 100V

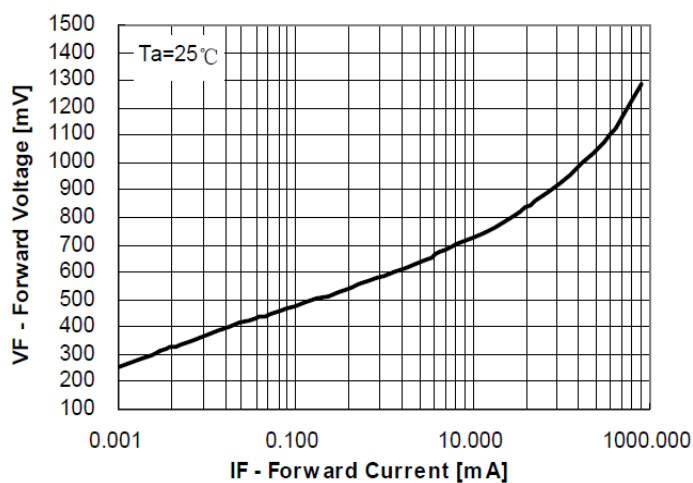


Figure 5. Forward Voltage vs Forward Current
VF – 0.001mA to 800mA

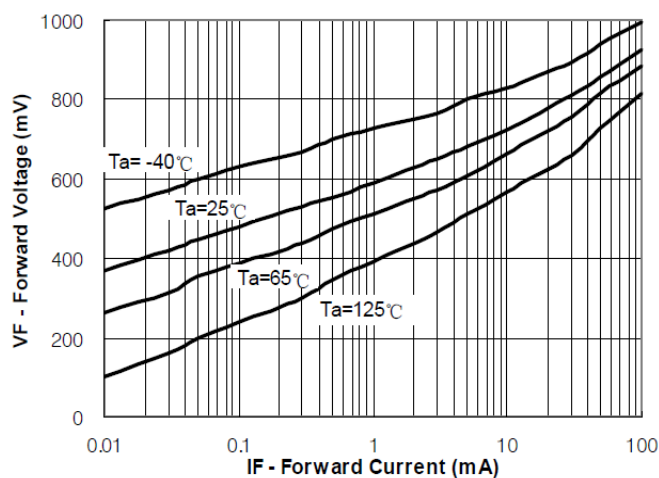


Figure 6. Forward Voltage vs Ambient Temperature
VF – 0.01mA to 100mA (-40 to +125 Deg C)