DATA SHEET

SEMICONDUCTOR

1N4148M

500 mW DO-34 Hermetically Sealed Glass Fast Switching Diodes

AXIAL LEAD
DO34

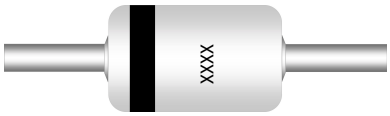
Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +200	°C
T_J	Operating Junction Temperature	+175	°C
W_{IV}	Working Inverse Voltage	75	V
I_O	Average Rectified Current	150	mA
I_{FM}	Non-repetitive Peak Forward Current	450	mA
I_{FSURGE}	Peak Forward Surge Current	2	A

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

DEVICE MARKING DIAGRAM
(1N4148M)



Device Code : 1NxxxxM

ELECTRICAL SYMBOL

Specification Features:

- Fast Switching Device (T_{RR} <4.0 nS)
- DO-34 Package (JEDEC DO-204)
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All external surfaces are corrosion resistant and leads are readily solderable
- Cathode indicated by polarity band

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	I_R=100µA	100		Volts
		I_R=5µA	75		
I_R	Reverse Leakage Current	V_R=20V		25	nA
		V_R=75V		5	µA
V_F	Forward Voltage 1N4148M	I_F=10mA		1.0	Volts
T_{RR}	Reverse Recovery Time	I_F=I_R=10mA R_L=100Ω I_{RR}=1mA		4	nS
C	Capacitance	V_R=0V, f=1M_{HZ}		4	pF

DEVICE CHARACTERISTICS

1N4148M

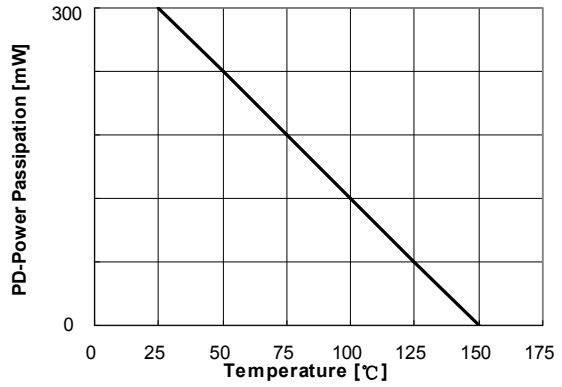


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

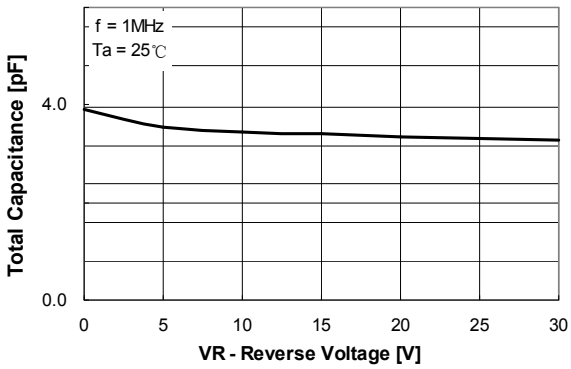


Figure 2. Total Capacitance

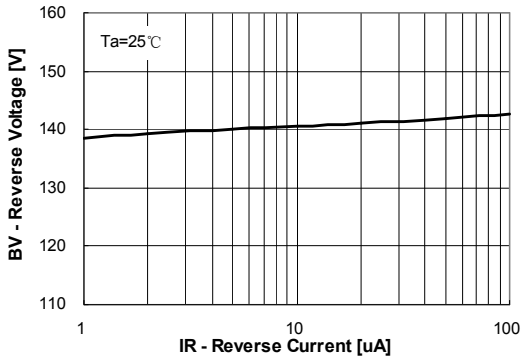


Figure 3. Reverse Voltage vs Reverse Current
BV – 1.0uA to 100uA

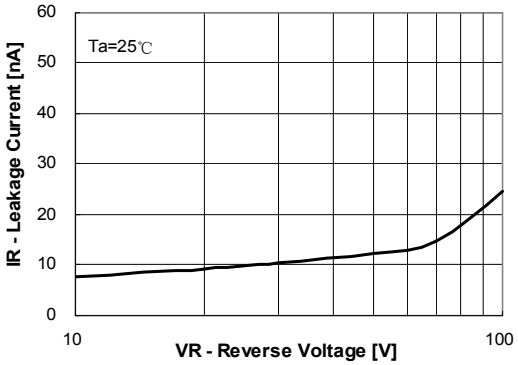


Figure 4. Reverse Current vs Reverse Voltage
IR – 10V to 100V

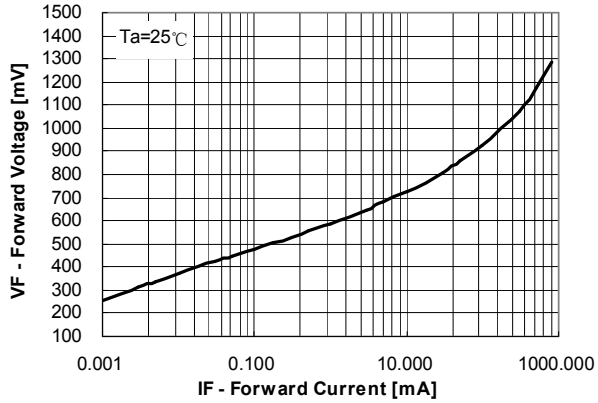


Figure 5. Forward Voltage vs Forward Current
VF – 0.001mA to 800mA

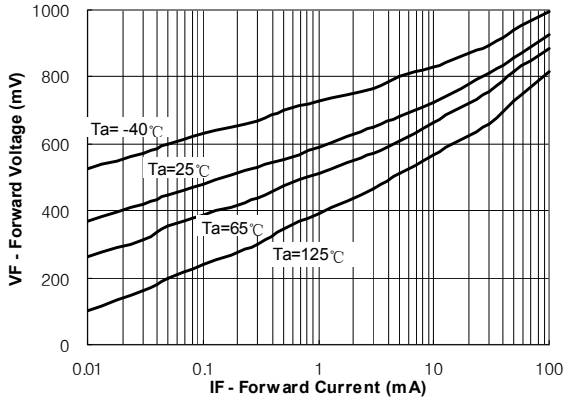


Figure 6. Forward Voltage vs Ambient Temperature
VF – 0.01mA to 100mA (-40 to +125 Deg C)