1N4148(LS)

SURFACE MOUNT
FAST SWITCHING DIODE

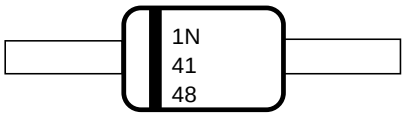
REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere

FEATURES

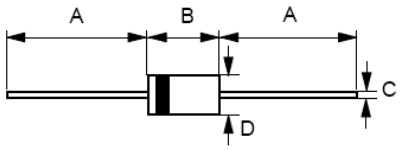
- Fast switching device (t_{rr} < 4.0 ns)
- DO-35 package (JEDEC)
- Through-hole device type mounting
- Hermetically sealed glass
- Compression bonded construction
- All external surfaces are corrosion resistant and terminals are readily solderable
- RoHS compliant
- Solder hot dip Tin(Sn) terminal finish
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Polarity: Color band denotes cathode
- Marking Code:



DO-35



DO-35		
DIM.	MIN.	MAX.
A	25.4	38.1
B	3.05	4.00
C	0.45	0.55
D	1.53φ	2.00φ
All Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = +25℃ unless otherwise specified

Characteristic	Symbol	Value	Units
Working Inverse Voltage	V_R	75	V
Non-Repetitive Peak Forward Current	I_{FM}	450	mA
Peak Forward Surge Current (Pulse Width = 1.0μs)	I_{FSM}	2	A
Average Rectified Output Current	I_O	150	mA
Power Dissipation	P_D	500	mW
Typical Thermal Resistance	R_{thJC} R_{thJL} R_{thJA}	150 110 350	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = +25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	Value	Unit
Breakdown Voltage	I_R = 100uA I_R = 5uA	V_B	100 75	V
Maximum Forward Voltage	I_F = 10mA	V_F	1000	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 75V V_R = 20V	I_R	5 25	uA nA
Typical Diode Capacitance	V_R = 0V, f = 1MHz	C_D	4	pF
Reverse Recovery Time	I_F = 10mA, V_R = 6V R_L = 100Ω I_{rr} = 1mA,	t_{rr}	4	ns

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

RATING AND CHARACTERISTIC CURVES
1N4148

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

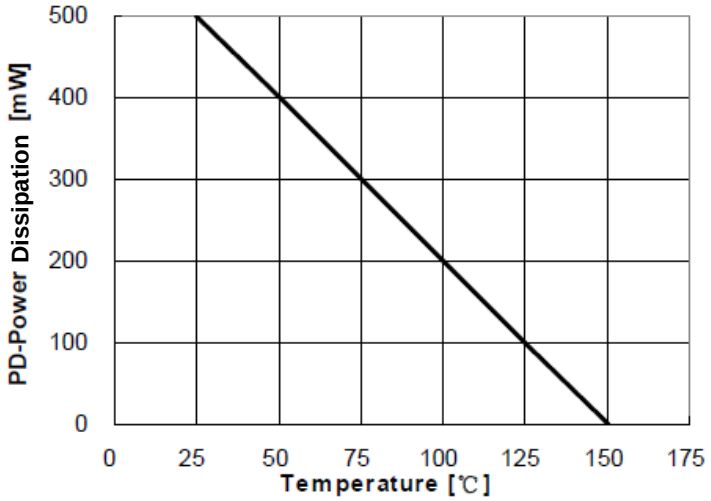


Figure 2. Total Capacitance

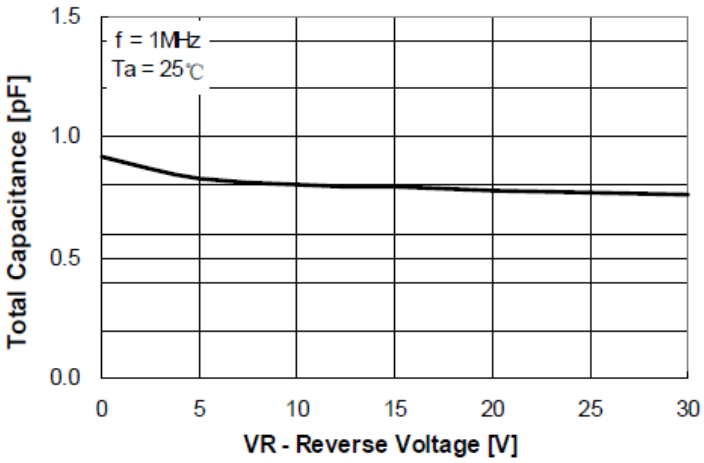


Figure 3. Reverse Voltage vs Reverse Current
V_B – 1.0uA to 100uA

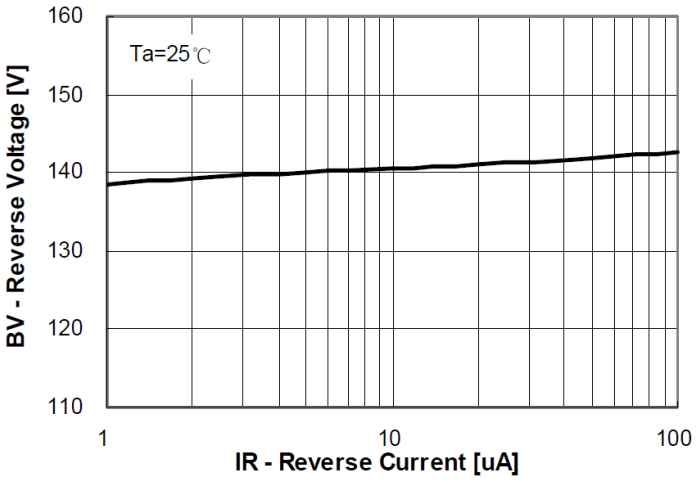


Figure 4. Reverse Current vs Reverse Voltage
I_R – 10V to 100V

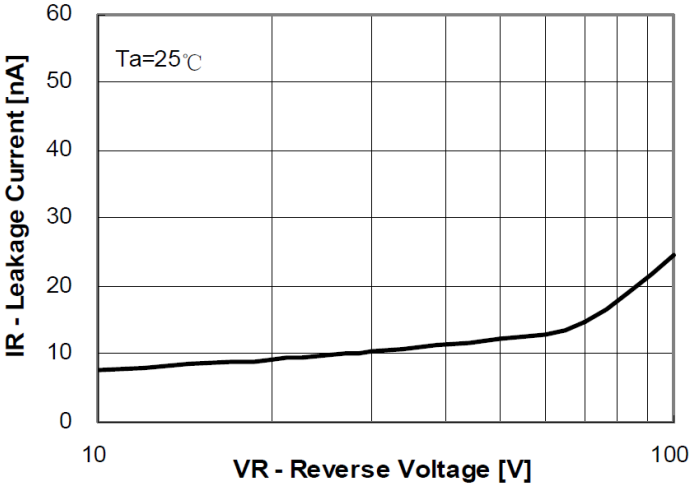


Figure 5. Forward Voltage vs Forward Current
V_F – 0.001mA to 800mA

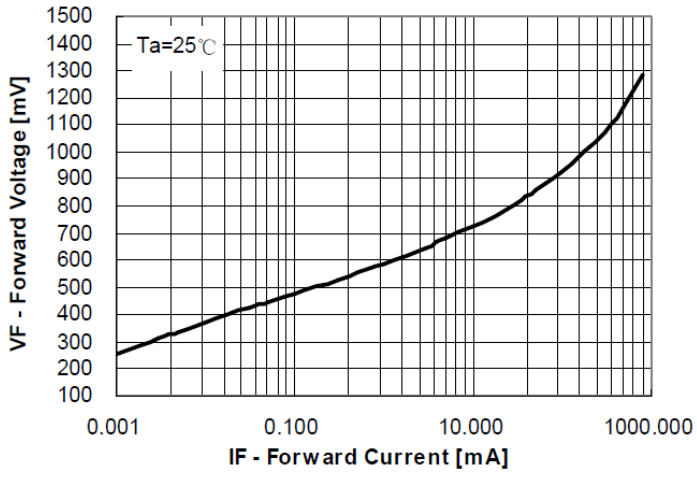
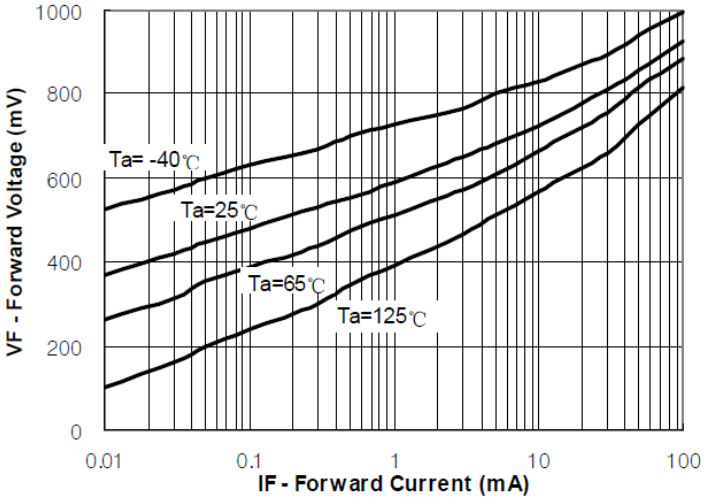


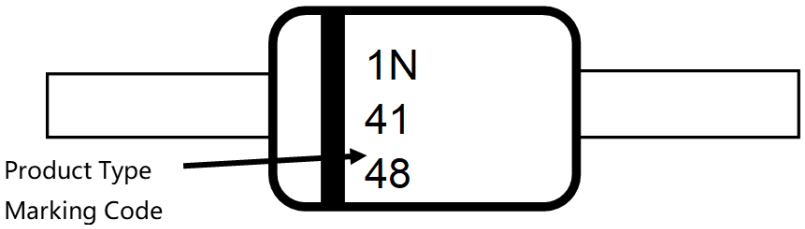
Figure 6. Forward Voltage vs Ambient Temperature
V_F – 0.01mA to 100mA (-40 to +125 Deg C)



Ordering Information:

Part Number	Package	Packing	
		Qty.	Carrier
1N4148	DO-35	10000pcs	Tape & Reel
1N4148-A52	DO-35	10000pcs	Tape & Reel

Marking Information:



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