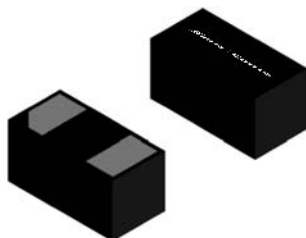


1N4148WDP

Small-Signal Fast Switching Diodes



Features

- Moisture sensitivity level 1
- Reverse voltage: 85V
- Average forward current : 150mA

Application

- High frequency rectifier
- Signal switching

Mechanical data

- **Package:** DFN0603-2L
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			T4
Repetitive peak reverse voltage	V_{RRM}	V	85
Forward current	I_F	mA	150
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I_{FSM}	A	1
Non-repetitive surge peak forward current @ t=1ms square wave			1.5
Power dissipation	P_D	mW	100
Junction temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150

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■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =0.1mA	85		
Forward voltage	V _{F1}	V	I _F =1mA			0.715
	V _{F2}	V	I _F =10mA			0.855
	V _{F3}	V	I _F =50mA			1.0
	V _{F4}	V	I _F =150mA			1.25
Reverse leakage current	I _{R1}	nA	V _R =20V			25
	I _{R2}	uA	V _R =75V			1
Junction capacitance	C _j	pF	V _R =0V, f =1MHZ			4
Reverse recovery time	T _{rr}	ns	I _F =10mA, V _R =6V, I _{rr} =1mA, R _L =100Ω			4

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJA} ⁽¹⁾	°C/W	1250
Thermal resistance, junction-to-case	R _{θJC} ⁽¹⁾	°C/W	1000

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint

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■ Characteristics

Fig 1: PD-Ta Curve

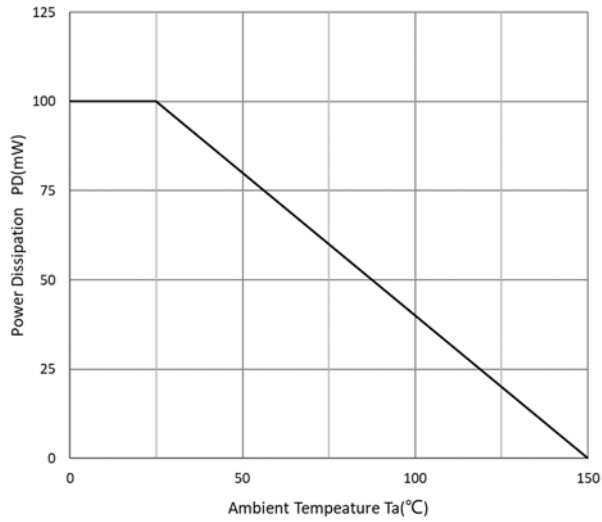


Fig 2: Capacitance Capability

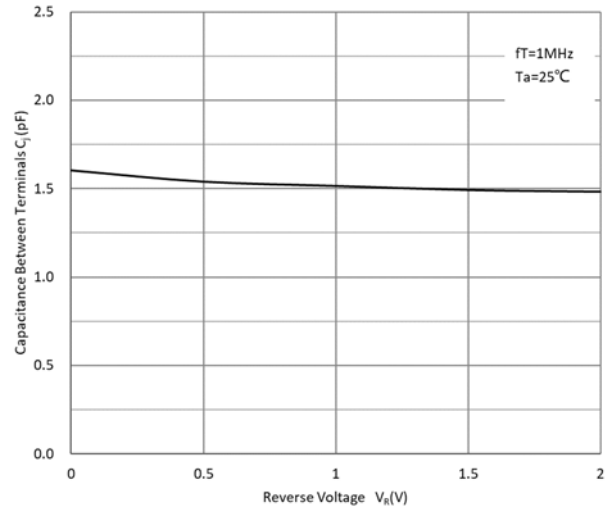


Fig 3: Typical Forward Characteristics

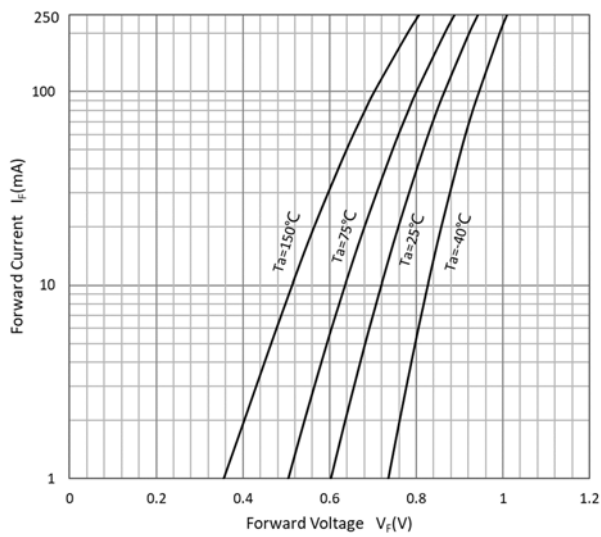
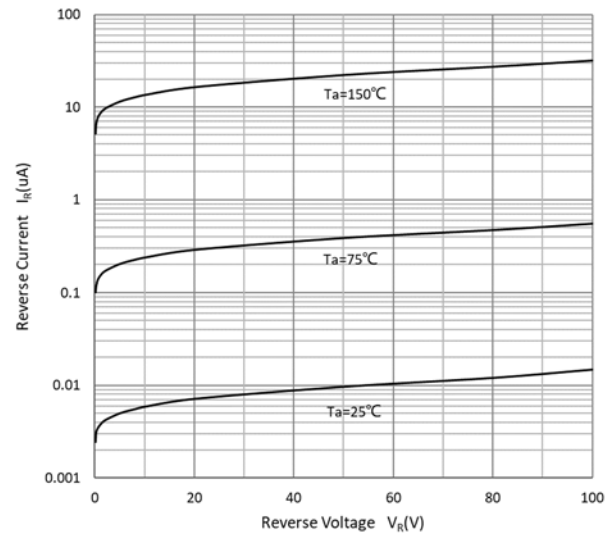


Fig 4: Typical Reverse Characteristics

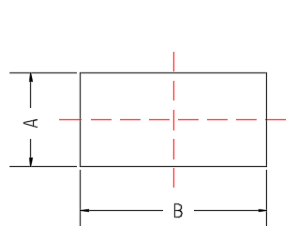


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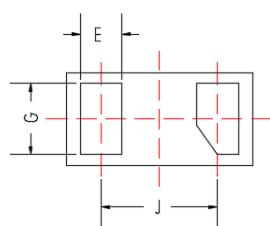
■ Ordering Information

Preferred P/N	Packing code	Unit weight(mg)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
1N4148WDP	F1	Approximate 0.18	10000	100000	400000	7" reel

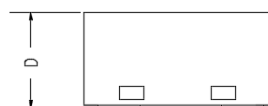
■ Outline Dimensions



TOP VIEW



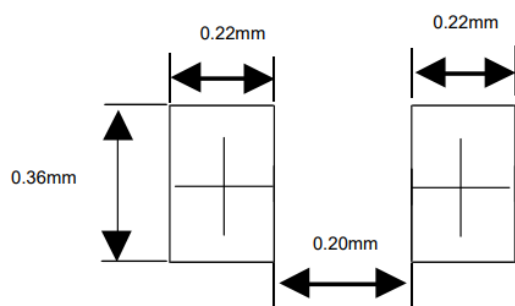
BOTTOM VIEW



SIDE VIEW

DIMENSIONS			
DIM	MM		
	MN	MN	MAX
A	0.250	0.300	0.370
B	0.550	0.600	0.670
D	0.230	0.300	0.340
E	0.105	0.135	0.165
G	0.200	0.230	0.260
J	0.375 BSC		

■ Suggested Pad Layout



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