1N4148WL2
High Speed Switching Surface Mount Diodes

Features

Small Body Outline Dimensions: nom 0.039″ x 0.024″ (1.0x0.6 mm)
Low Body Height: nom 0.019″ (0.5 mm)
Low Forward Voltage Drop
Peak reverse voltage: 80.0 V
Low reverse leakage
Fast reverse recovery : 4ns
High reliability
Totally Lead-Free & Fully RoHS Compliant

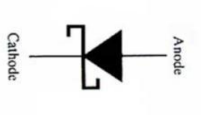
W8

Applications

Reverse protection Diode
Switching Diode
Clamping protection



DFN1006-2L(Pb-Free)



Schematic Diagram

Absolute Maximum Rating

Rating	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	80	V
Forward current	I_F	100	mA
Junction Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{stg}	-50 to +125	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T_L	260	°C

Note : FR-5 =1.0*0.75*0.062inch (25.4*19.05*1.58mm).

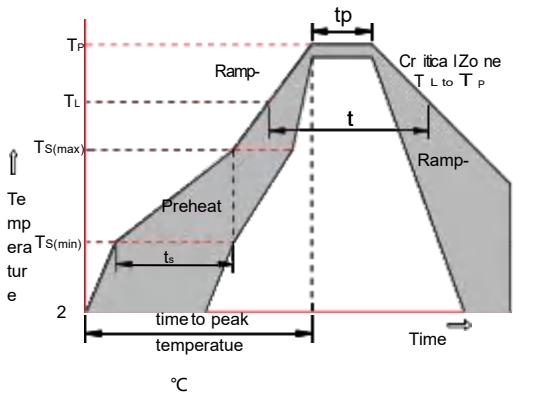
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Voltage	V_R	I_R=100uA	80			V
Reverse Current	I_R	V_R=20V			0.025	uA
		V_R=80V			1	
Forward Voltage	V_F	I_F=1mA		0.59	0.65	V
		I_F=10mA		0.72	0.8	
		I_F=50mA		0.82	0.9	
		I_F=100mA		0.91	1.0	
		I_F=150mA		0.98	1.2	
Total Capacitance	C_{tot}	V_R=0V,f=1MHz		2	3	pF
Reverse Recovery	trr	IF=IR=10mA,Irr=0.1*IR			4	ns

Soldering parameters

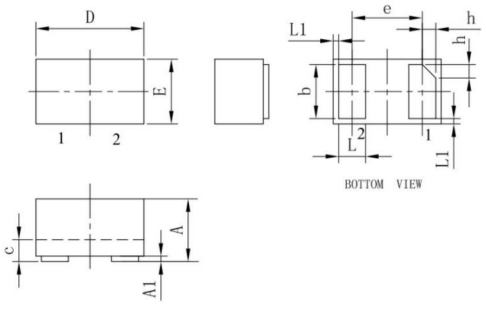
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

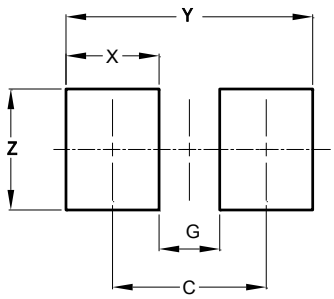
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

DFN1006-2L





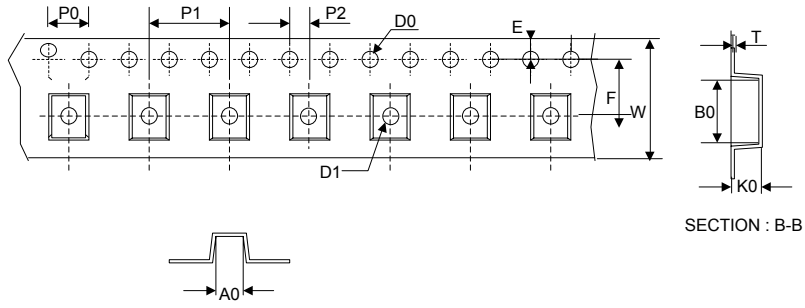
DFN1006-2L

	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (mm)	Typ. (mm)	Max. (mm)
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007

Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
Y	1.10
Z	0.65

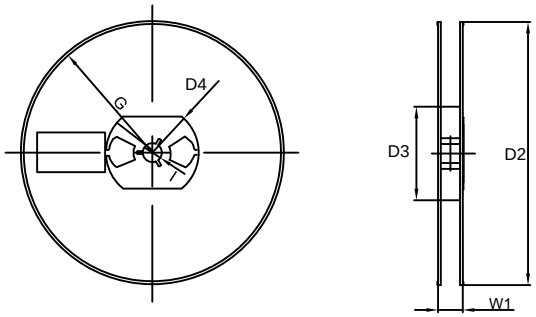
Tape & rell specification

Tape



Symbol	Dimension (mm)
P0	4.00±0.20
P1	2.00±0.20
P2	1.55±0.20
D0	1.55±0.20
D1	0.40±0.20
E	1.55±0.25
F	3.60±0.20
W	8.00±0.20
A0	1.00±0.20
B0	1.40±0.20
K0	0.75±0.20
T	0.20±0.20

7” Reel



D2	177.0±5.0
D3	55Min.
D4	R24.6±2.0
G	R82.0±2.0
I	13.0±2.0
W1	10.20±3.0
Quantity: 3000PCS	