



1. Features

- 2-pin lead-less package
- Junction capacitance (Max value: 22pF)
- Peak Pulse Current (8/20μs): 6A
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:7V
- RoHS Compliant

DFN1006-2L



2. Mechanical Data

- Case:Molded Plastic,DFN1006-2L.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:D8
- Mounting Position : Any.



3. Maximum Ratings

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P _{PP}	80	W
Peak Pulse Current (8/20μs)	I _{PP}	6	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _j	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

4. Electrical Characteristics (T_A=25°C,RH=45%-75%,unless otherwise noted)

Characteristics	Symbol	Condition	Min	TYP	Max	Unit
Reverse Working Voltage	V _{RWM}		-	-	7	V
Reverse Breakdown Voltage	V _{BR}	I _R = 1mA	7.5	-	9.6	V
Reverse Leakage Current	I _R	V _R =7V	-	-	0.2	uA
Clamping voltage	V _C	I _{PP} = 1A,T _p =8/20us	-	-	9	V
Clamping voltage	V _C	I _{PP} = 6A,T _p =8/20us	-	-	14	V
Junction capacitance	C _J	V _R =0V,f =1MHz	-	15	22	pF



5. Rating And Characteristic Curves

Fig.1 Power rating derating curve

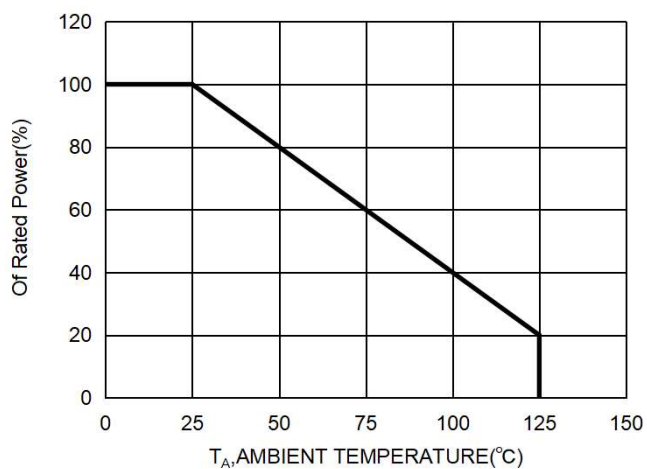


Fig.2 pulse Waveform

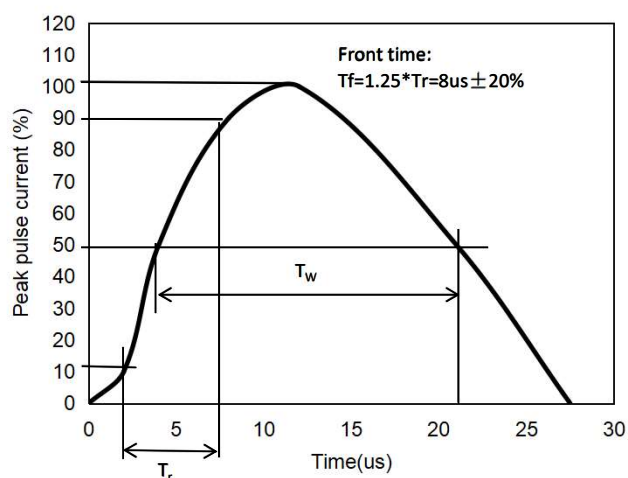


Fig.3 Capacitance between terminals characteristics

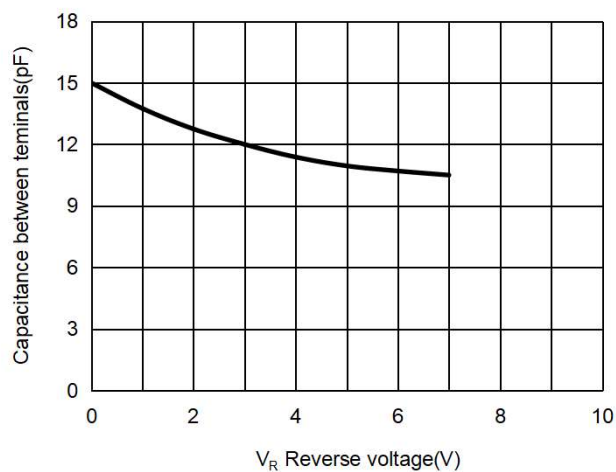
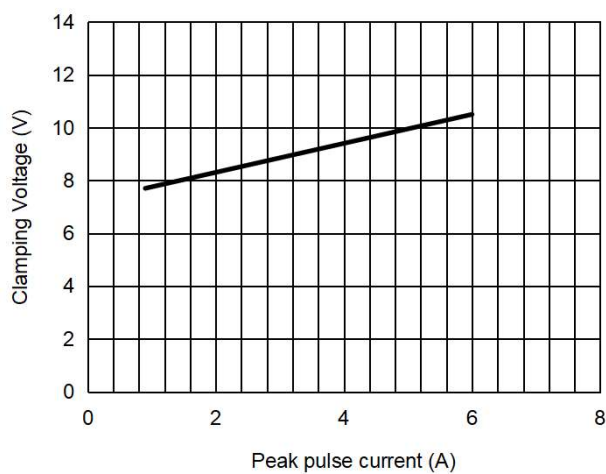
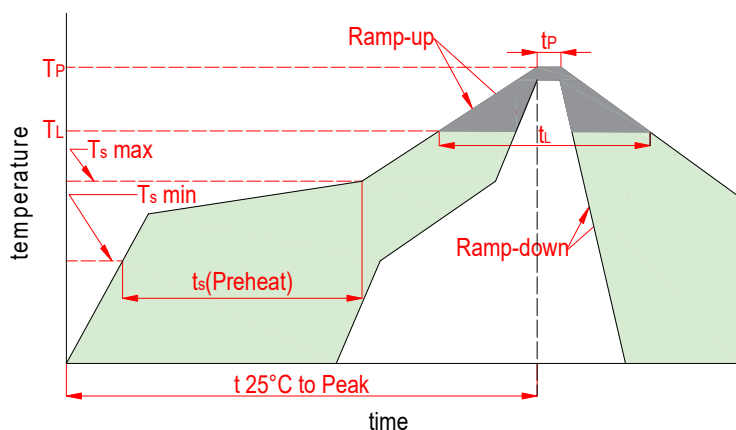


Fig.4 Clamping Voltage vs. Peak Pulse Current



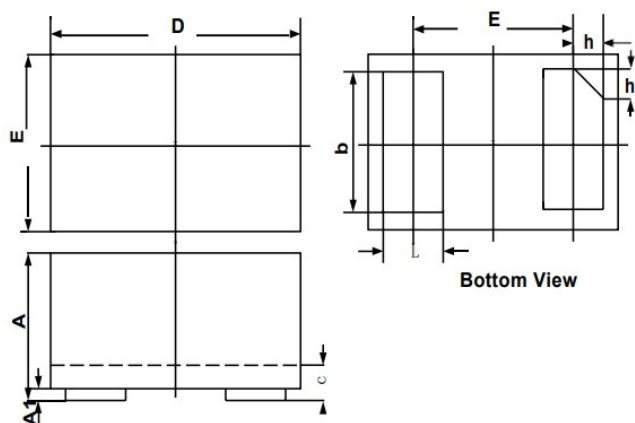


6. Soldering Parameters

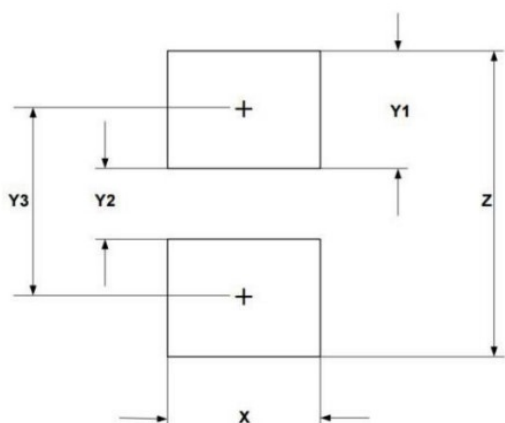


Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_P)		260 ^{+0/-5} °C
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe. (T_p)		8 minutes max
Do not exceed		260°C

7. Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.018	0.022	0.450	0.550
A1	0.000	0.002	0.000	0.050
b	0.018	0.022	0.450	0.550
c	0.005	0.007	0.120	0.180
D	0.037	0.041	0.950	1.050
e	0.026		0.650	
E	0.022	0.026	0.550	0.650
L	0.008	0.012	0.200	0.300
h	0.003	0.007	0.070	0.170



Dimensions	Inches	Millimeters
X	0.024	0.600
Y1	0.020	0.500
Y2	0.012	0.300
Y3	0.031	0.800
Z	0.051	1.300



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