



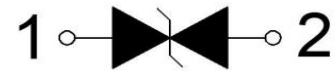
1. Features

- 2-pin lead-less package
- Junction capacitance (Max value: 3.5pF)
- Peak Pulse current (8/20μs) Max:3.5A
- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:3.5V
- RoHS Compliant

2. Mechanical Data

- Case:Molded Plastic,DFN0603-2L.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking:5A
- Marking:marked on body.

DFN0603-2L



Bi-directional

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}	47	W
Peak Pulse Current (8/20μs)	I_{PP}	3.5	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±15	KV
ESD per IEC 61000-4-2 (Contact)		±8	
Junction Temperature	T_j	-55~+125	°C
Storage Temperature	T_{stg}	-55~+150	°C

4. Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Characteristics	Symbol	Condition	Min	TYP	Max	Unit
Reverse Working Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_R = 1\text{mA}$	6	-	9	V
Reverse Leakage Current	I_R	$V_R = 5\text{V}$	-	-	0.1	uA
Clamping voltage	V_C	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	-	-	11	V
Clamping voltage	V_C	$I_{PP} = 3.5\text{A}, T_P = 8/20\mu\text{s}$	-	-	13.5	V
Junction capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	3.5	pF



5. Rating And Characteristic Curves

FIG1: Power rating derating curve

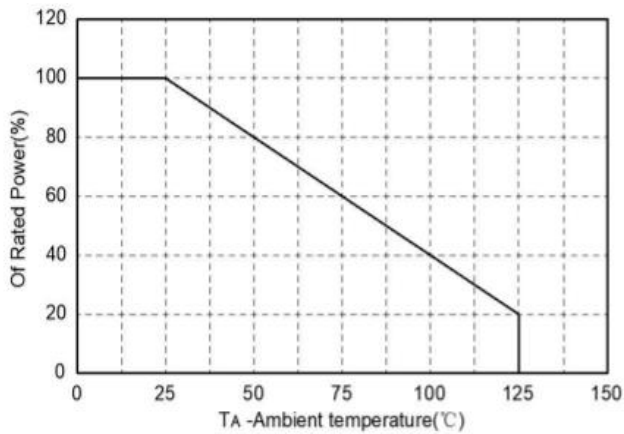


FIG2: pulse Waveform

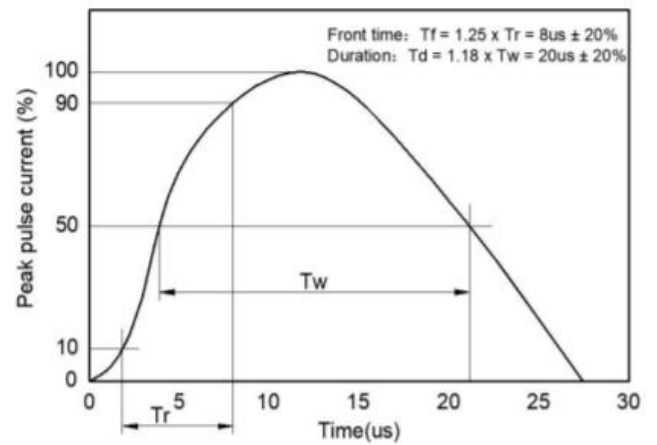


FIG3: Capacitance between

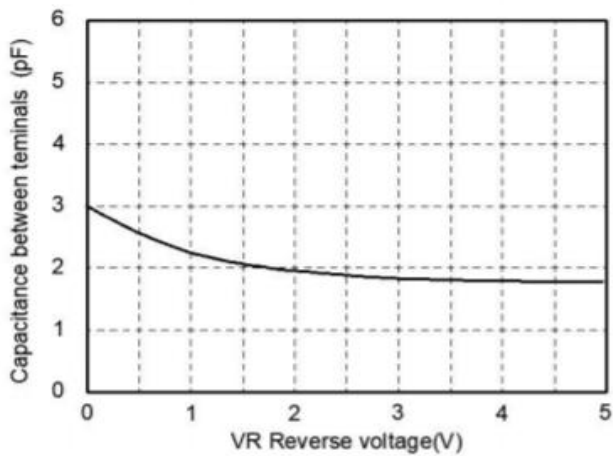
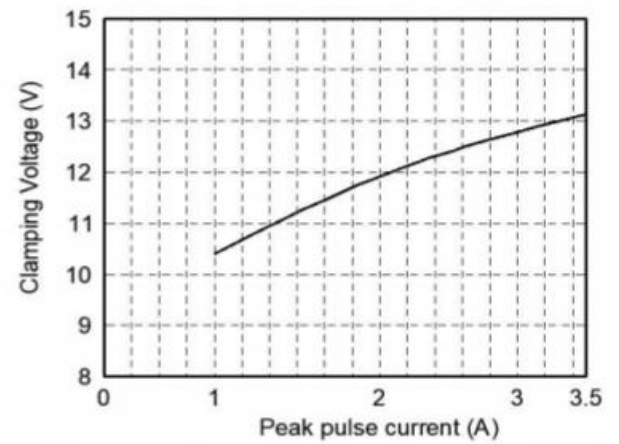
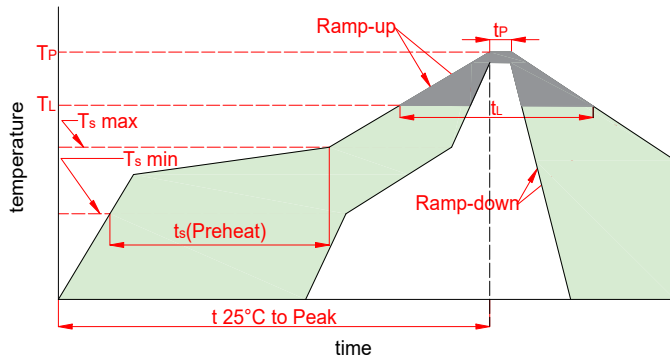


FIG4: Clamping Voltage vs. Peak Pulse Current



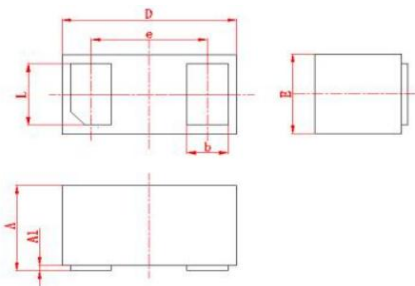


6. Soldering Parameters



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

7. Dimensions



Mounting PAD Layout

Symbol	Inches		Millimeters	
	Min	Max	Min	Max
A	0.011	0.015	0.27	0.37
A1	0.000	0.002	0.00	0.05
D	0.022	0.026	0.55	0.65
E	0.010	0.014	0.25	0.35
e	0.016		0.40	
b	0.004	0.007	0.09	0.19
L	0.007	0.011	0.18	0.28

8. Part Marking System

Cathode Band



9. Package Information

Package	Part Number	Marking Code	Quantity(pcs)
DFN0603-2L	ESDLC5V001P0B	5A	15000



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