



#### 1-Line Uni-directional TVS Diode

DFN1006-2L

#### 1. Features

• 2-pin lead-less package

• Junction capacitance (Max value: 30pF)

- Peak Pulse current (8/20µs) Max:4A
- IEC61000-4-2 (ESD) ±30kV (air), ±25kV (contact)
- · Low clamping voltage
- Low leakage current
- Working voltages:36V
- RoHS Compliant

#### 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:N36
- · Marking:marked on body.





### 3. Maximum Ratings

Characteristic	Symbol	Value	Unit
Peak Pulse Power (tp=8/20µs waveform)	P <sub>PP</sub>	240	W
Peak Pulse Current (8/20µs)	I <sub>PP</sub>	4	A
ESD per IEC 61000-4-2 (Air)	V	±30	KV
ESD per IEC 61000-4-2 (Contact)	V <sub>ESD</sub>	±25	l Kv
Junction Temperature	T <sub>j</sub>	-55~+125	$^{\circ}$
Storage Temperature	T <sub>stg</sub>	-55~+150	$^{\circ}$

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

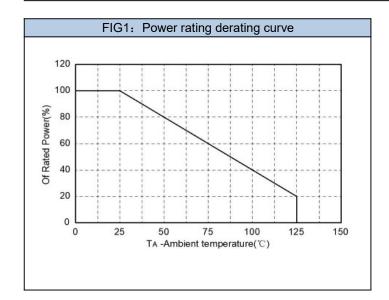
Characteristics	Symbol	Condition	Min	TYP	Max	Unit
Reverse Working Voltage	$V_{RWM}$		-	-	36	٧
Reverse Breakdown Voltage	$V_{BR}$	I <sub>R</sub> = 1mA	38	-	45	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =36V	•	-	0.2	uA
Clamping voltage	V <sub>C</sub>	$I_{PP} = 1A, T_{P} = 8/20us$	-	-	50	V
Clamping voltage	V <sub>C</sub>	$I_{PP} = 4A, T_{P} = 8/20us$	-	-	60	V
Junction capacitance	C <sub>J</sub>	$V_R = 0V, f = 1MHz$	-	-	30	pF

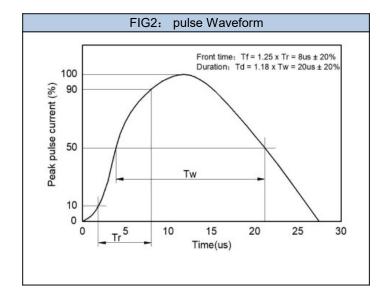


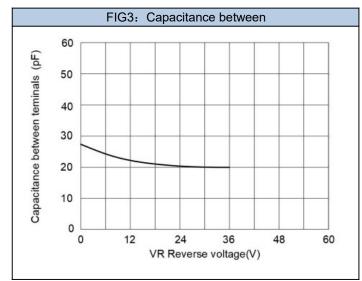


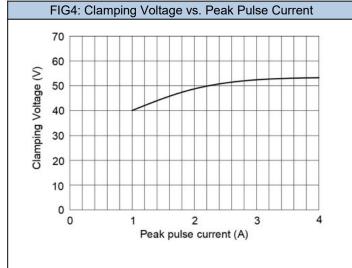


### 5. Rating And Characteristic Curves



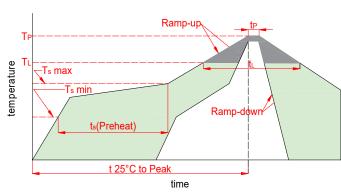






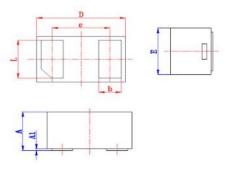


## 6. Soldering Parameters

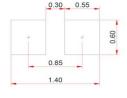


	Reflow Condition	Lead-free	
	Temp. min(T <sub>s</sub> (min))	150℃	
Pre Heat	Temp. max(T <sub>s</sub> (min))	<b>200</b> ℃	
	Time(min to max)(t <sub>s</sub> )	60~120s	
Aver. ramp	up rate(Liquidus Temp.)(T <sub>L</sub> )to peak	3℃/s max	
T <sub>s</sub> (max) to	T <sub>L</sub> -Ramp-up Rate	3℃/s max	
Reflow	Temp.(T <sub>L</sub> )(Liquidus)	<b>217</b> ℃	
Reliow	Temp.(t <sub>L</sub> )(Liquidus)	60~150s	
Peak Temp	.(T <sub>P</sub> )	260 <sup>+0/-5</sup> ℃	
Time within	actual peak Temp.(t <sub>p</sub> )	30s max	
Ramp-down	n Rate	6℃/s max	
Time 25°C 1	to peak Tempe.(T <sub>p</sub> )	8 minutes max	
Do not exce	eed	<b>260</b> ℃	

# 7. Dimensions



Mounting PAD Layout



Symbol	Inc	hes	Millimeters		
Syllibol	Min	Max	Min	Max	
Α	0.016 0.020		0.40	0.52	
A1	0.000	0.002	0.00	0.05	
D	D 0.035		0.90	1.10	
Е	0.022	0.026	0.55	0.65	
е	0.0	26	0.65		
b	0.007	0.013	0.18	0.32	
L	0.013	0.022	0.34	0.55	

### 8.Part Marking System

Cathode Band



## 9. Package Information

Package	Part Number	Marking Code	Quantity(pcs)
DFN1006-2L	ESDN3601P1	N36	10000







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