



## PRODUCT DATA SHEET



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**Datasheet**



**Resources**

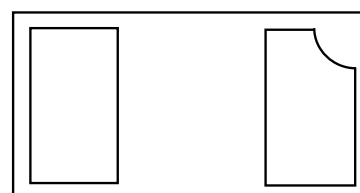
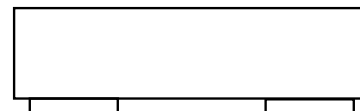


**Samples**

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at [www.jg-semi.cn](http://www.jg-semi.cn). Please email any questions regarding the system integration to [JINGAO\\_questions@jgsemi.com](mailto:JINGAO_questions@jgsemi.com).

**■ Feature**

- 100W peak pulse power per line ( $t_P = 8/20\mu s$ )
- DFN1006-2L package
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically  $< 1ns$
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to  
IEC61000-4-2(ESD)  $\pm 15KV$ (air),  $\pm 8KV$ (contact);  
IEC61000-4-4 (EFT) 40A (5/50ns)

**■ Simplified outline(DFN1006-2L)****■ Mechanical Characteristics**

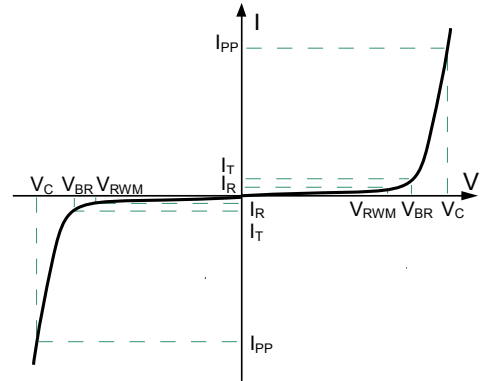
- Lead finish: 100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:  $260^{\circ}C$
- Device meets MSL 1 requirements
- Pure tin plating:  $7 \sim 17 \mu m$
- Pin flatness:  $\leq 3mil$

**■ Applications**

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

■ Electronics Parameter

Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$P_{PP}$	Peak Pulse Power
$C_J$	Junction Capacitance
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$

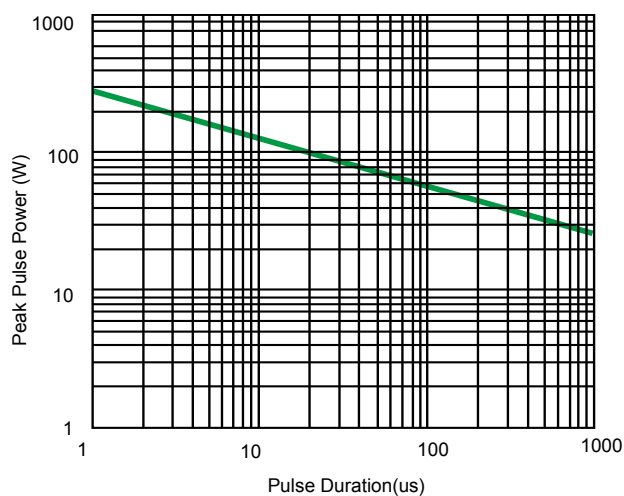
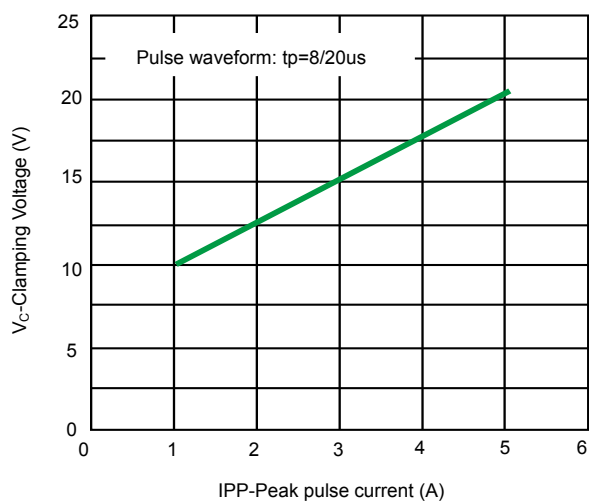
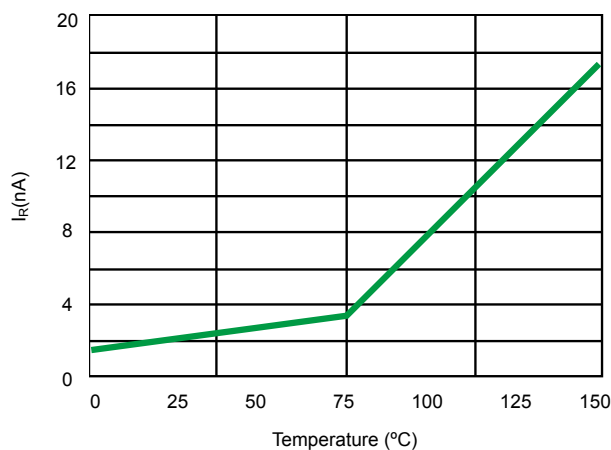
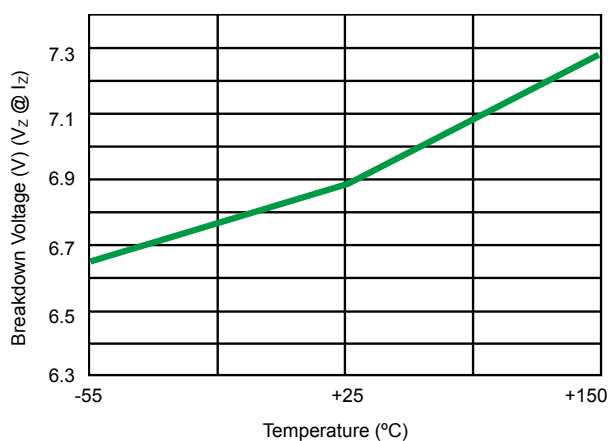
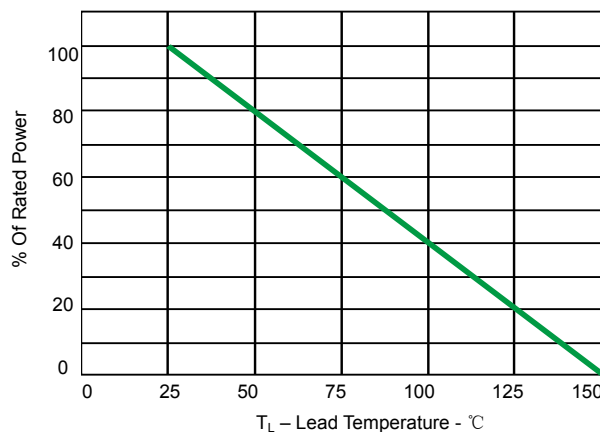
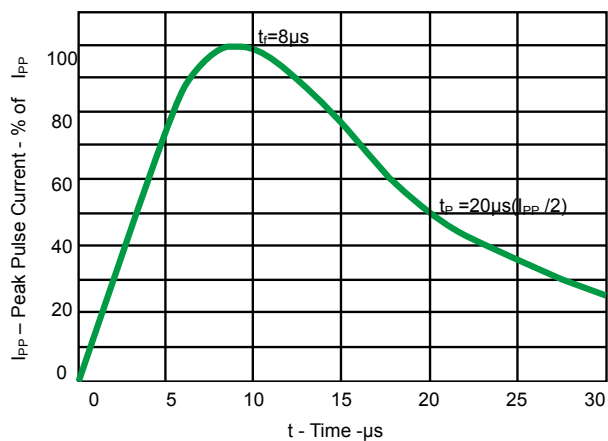


■ Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	$V_{RWM}$				5	V
Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	5.6		8.5	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$ $T=25^\circ\text{C}$			1.0	$\mu\text{A}$
Maximum Reverse Peak Pulse Current	$I_{PP}$			5.5		A
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}$			10	V
Clamping Voltage	$V_C$	$I_{PP}=3\text{A}$			15	V
Clamping Voltage	$V_C$	$I_{PP}=5\text{A}$			21	V
Junction Capacitance	$C_J$	$V_R=0\text{V}$ $f = 1\text{MHz}$		0.3		pF

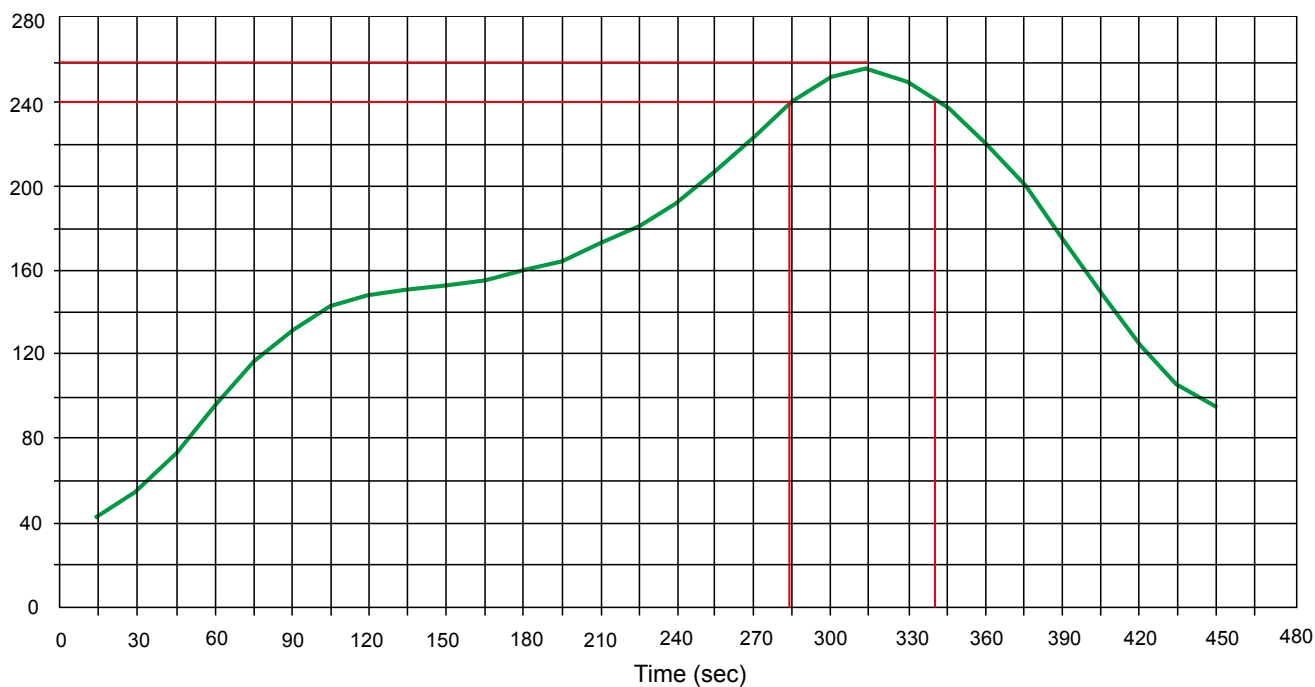
■ Absolute maximum rating@25°C

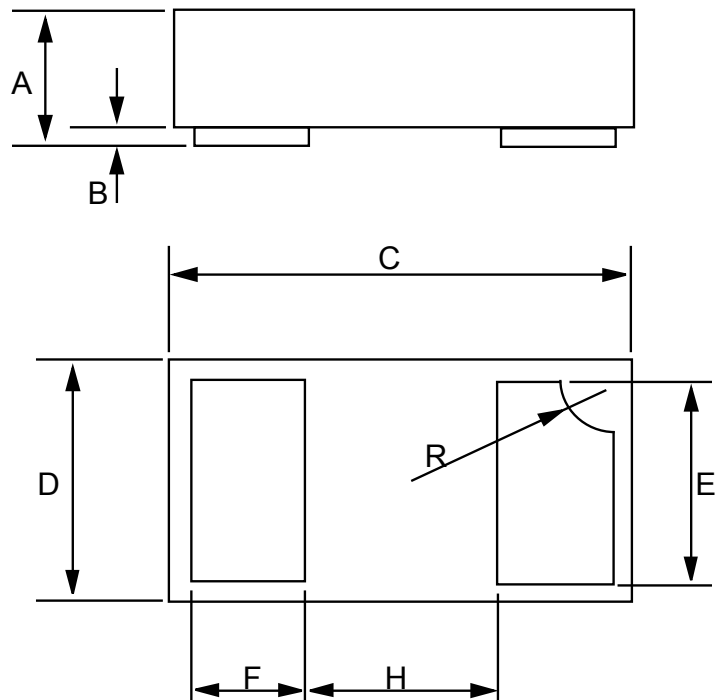
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu\text{s}$ )	$P_{pp}$	100	W
Operating Temperature	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$



**■ Solder Reflow Recommendation**

Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



**Package Outline**
**DFN1006-2L**


Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.015	0.34	0.40
B	0.000	0.002	0.00	0.05
C	0.037	0.042	0.95	1.075
D	0.021	0.026	0.55	0.675
E	0.017	0.021	0.45	0.55
F	0.007	0.011	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15

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