



PRODUCT DATA SHEET



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Datasheet



Resources

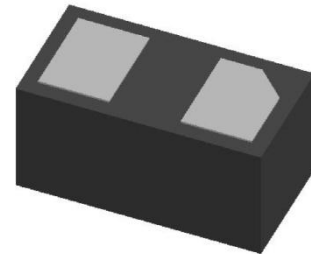


Samples

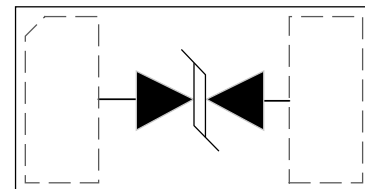
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

Features

- 50Watts peak pulse power($t_p=8/20\mu s$)
- Bi-directional configurations
- Solid-state silicon-avalanche technology
- Low leakage current
- Low clamping voltage
- Low capacitance($C_j=0.2pF$ typ.)
- IEC61000-4-4(EFT):40A(5/50ns)
- IEC61000-4-2 (ESD): $\pm 15kV$ (contact discharge)
 $\pm 20kV$ (air discharge)
- IEC 61000-4-5(Lightning): 3A (8/20 μs)



DFN0603



Applications

- USB3.0 and HDMI2.0
- Sensitive interfaces lines
- Notebooks, Desktops, and Servers
- Portable instrumentation

Mechanical Data

- DFN0603 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

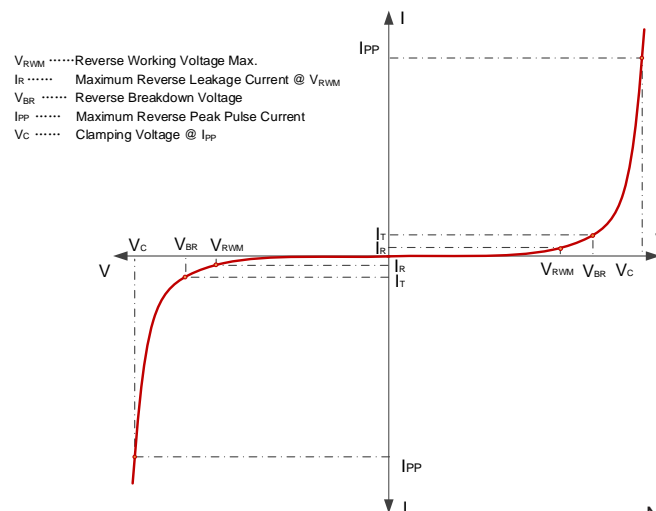
Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	50	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (Note1)	I_{pp}	3	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	20 15	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^\circ C$			100	nA
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.5	8.5		V
Clamping Voltage	V_C	$I_{PP}=3A, t_p=8/20\mu s$		17		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.2	0.3	pF

Electrical Parameters (TA = 25°C unless otherwise noted)



Note1: 8/20 μs pulse waveform.

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

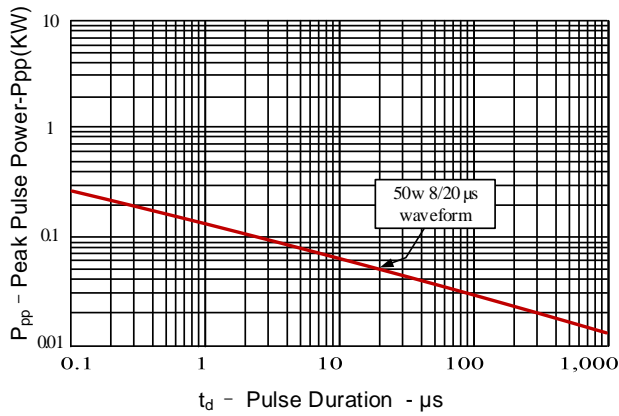


Figure 2: Power Derating Curve

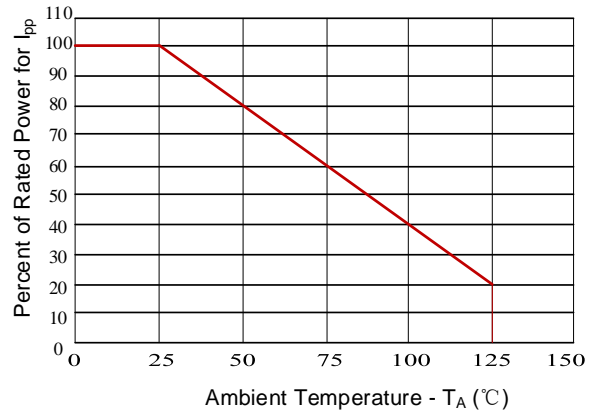


Figure3: Pulse Waveform

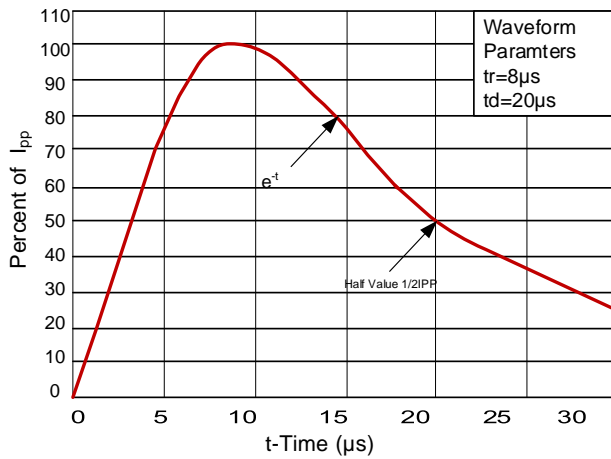
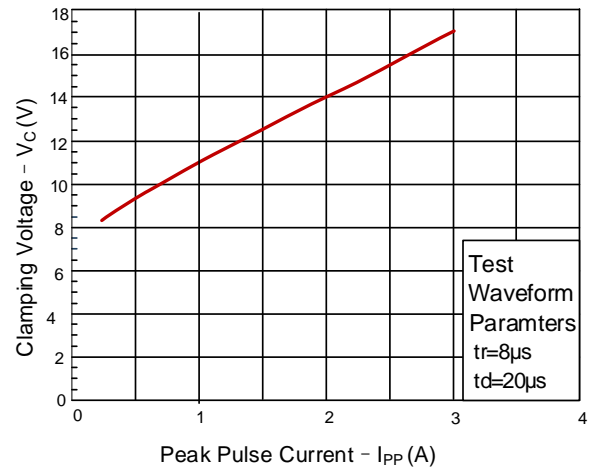
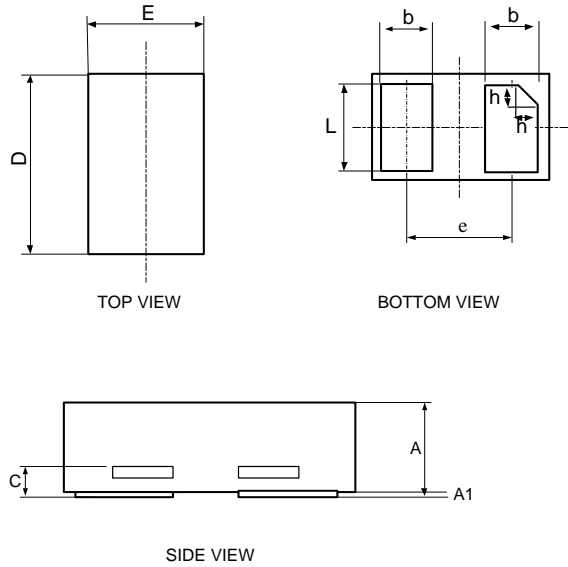


Figure 4: Clamping Voltage vs.Ipp

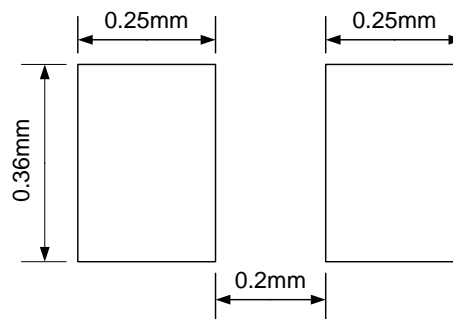


Outline Drawing-DFN0603



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.28	0.30	0.34
A1	0.00	0.02	0.05
C	0.05	0.10	0.15
D	0.55	0.60	0.65
E	0.25	0.30	0.35
e	0.40		
b	0.13	0.19	0.24
L	0.20	0.25	0.30
h	0	0.05	0.10

Recommend PCB Layout



Notes: This PCB Layout Is For Reference Purposes Only.

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