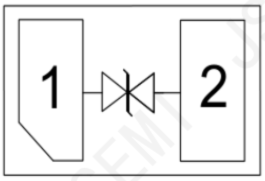
Features

- ◆ 68W (8/20μs) Peak Pulse Power
- ◆ Low Capacitance ESD Protection
- ◆ **DFN1006-2** Package
- ◆ RoHS Compliant
- ◆ Matte Tin Lead finish (Pb-Free)
- ◆ Protect One High Speed Data Line
- ◆ Meet IEC61000-4-2 Level 4:
  Contact Discharge > 25kV Air
  Discharge > 25kV

Circuit Diagram

Applications

- ◆ Communication System
- ◆ Portable Instrumentation
- ◆ Audio and Video Equipment
- ◆ Computers and Peripherals
- ◆ USB 1.1, USB 1.0 Ports



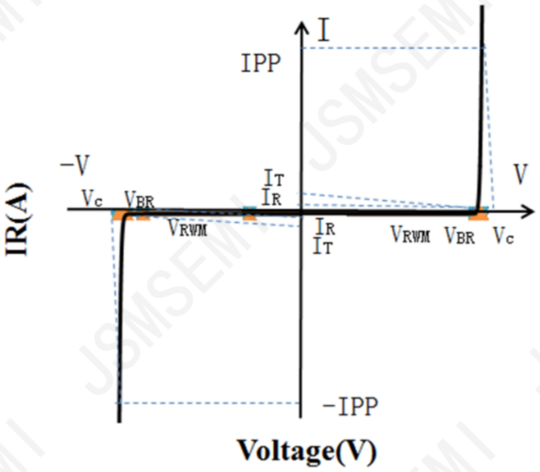
Package Outline

Maximum Ratings (Ta = 25℃)

Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	68	W
IPP	Peak Pulse Current	5	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	25	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	25	kV
TJ	Junction Temperature	-55 to +150	℃
TSTG	Storage Temperature	-55 to +150	℃

Portion Electronics Parameter

Symbol	Parameter
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_c	Clamping Voltage @Ic



Electrical Characteristics (Ta = 25℃)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	5.7		9	V
IR	Reverse Leakage Current	VRWM = 5V			0.1	μA
VC	Clamping Voltage	IPP = 1A (8/20μs)			12	V
VC	Clamping Voltage	IPP = 5A (8/20 μs)			17	V
CJ	Capacitance	VR = 0V, f = 1MHz	8	8.9	15	pF

SURGE CURRENT WAVEFORM:

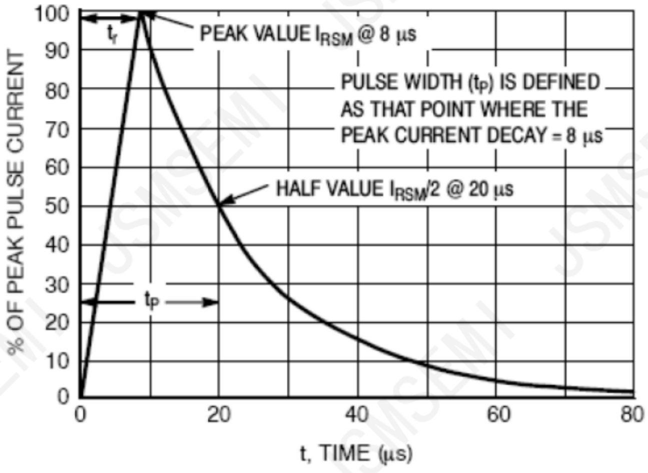
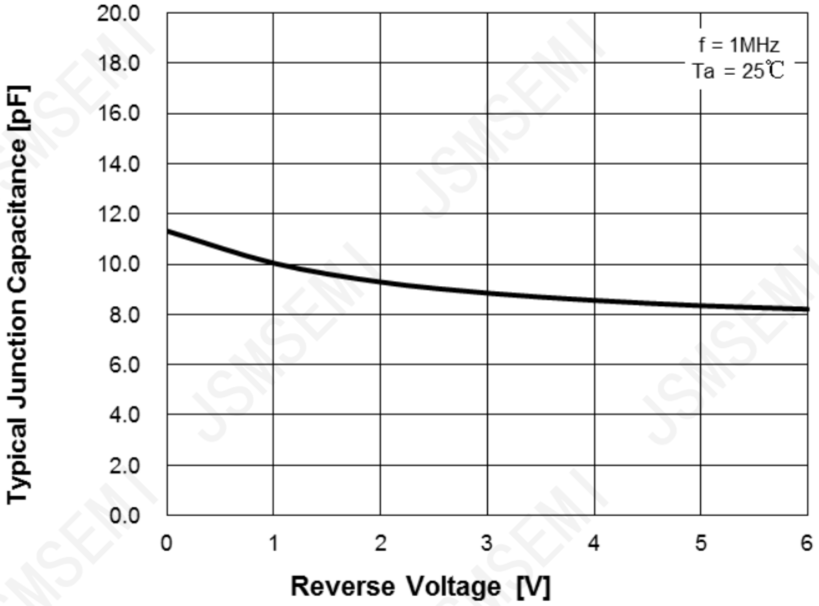
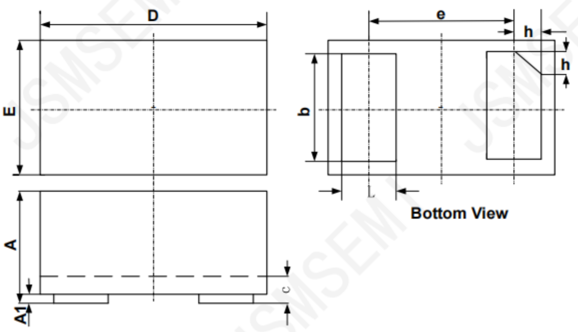


Figure 1. 8 x 20 µs Pulse Waveform

CAPACITANCE CURVE:

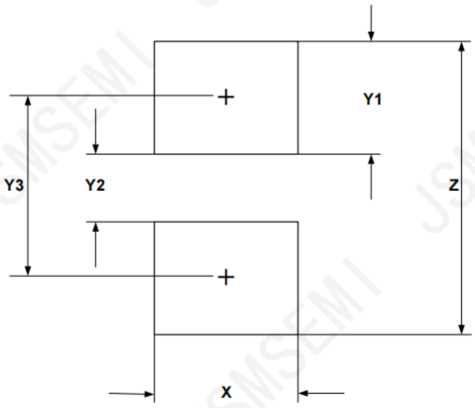


DFN1006-2 Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052

Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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