Features

- Bi-directional ESD protection of one line
- 100Watts peak pulse power (tp = 8/20μs)
- Working voltage: 7V
- Junction Capacitance: 16pF(Typ)
- AEC-Q101 qualified
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-5 (Lightning) 8A (8/20μs)

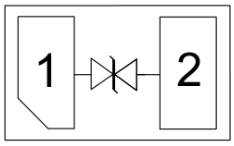
Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays

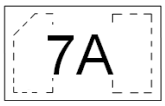
Mechanical Data

- Package:DFN0603-2
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
SP1005-01ETG-CN	DFN0603-2		15000 Tape & Reel	7 inches

Absolute Maximum Rating(T_A=25°C unless otherwise Specified)

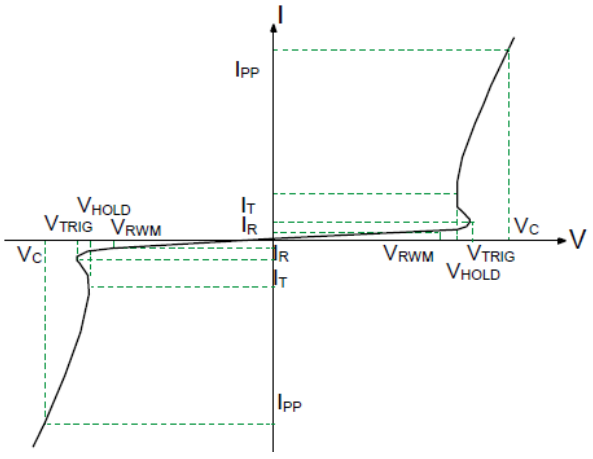
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	100	W
Peak Pulse Current (8/20μs)	IPP	8	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	VESD	±30 ±30	kV
Operating Temperature Range	TJ	−55 to +125	°C
Storage Temperature Range	Tstg	−55 to +150	°C

Electrical Characteristics(T_A=25°C unless otherwise Specified)

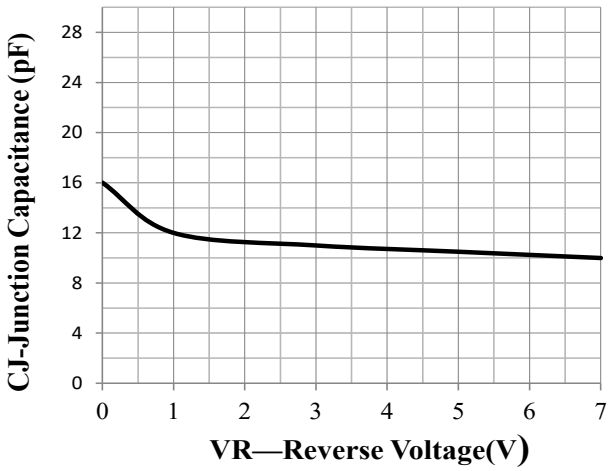
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				7	V
Breakdown Voltage	VBR	IT = 1mA	8	9		V
Reverse Leakage Current	IR	VRWM =7V			0.2	μA
Clamping Voltage	VC	IPP = 1A (8 x 20μs pulse)		12		V
Clamping Voltage	VC	IPP = 8A (8 x 20μs pulse)		10	12	V
Junction Capacitance	CJ	VR = 0V, f = 1MHz		16	25	pF

Portion Electronics Parameter

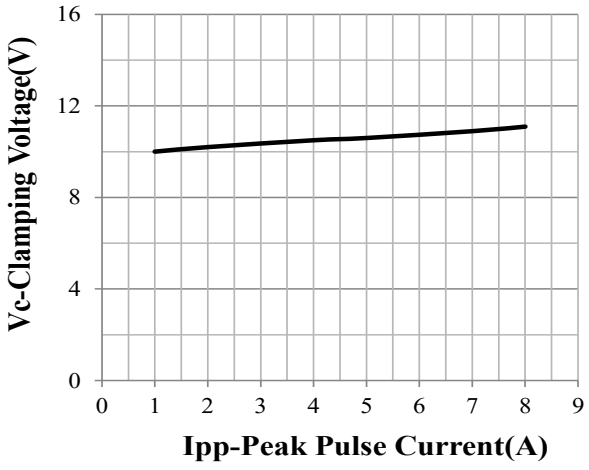
Symbol	Parameter
IT	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



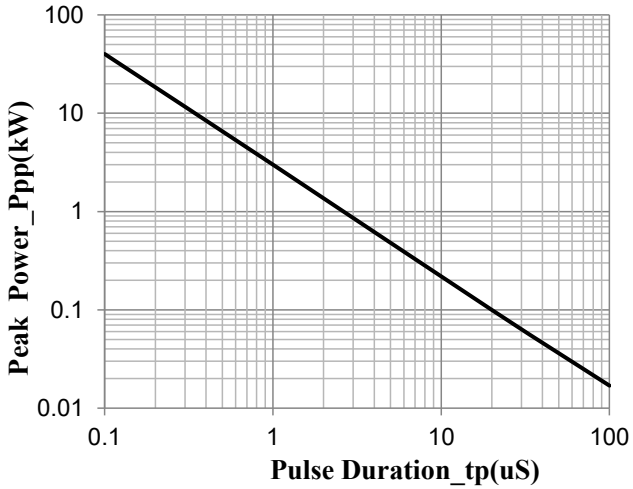
Typical Characteristics (T_A=25°C unless otherwise Specified)



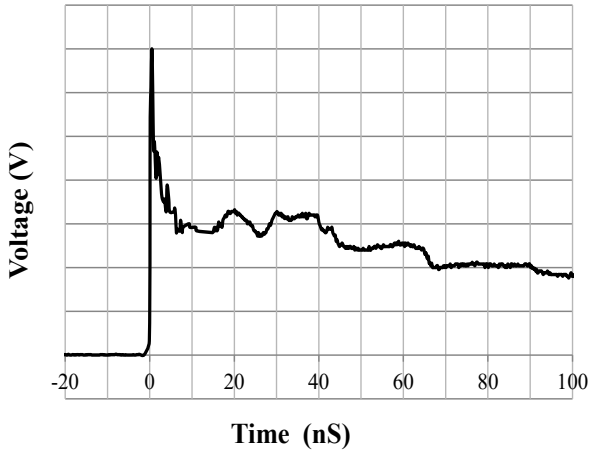
Junction Capacitance vs. Reverse Voltage



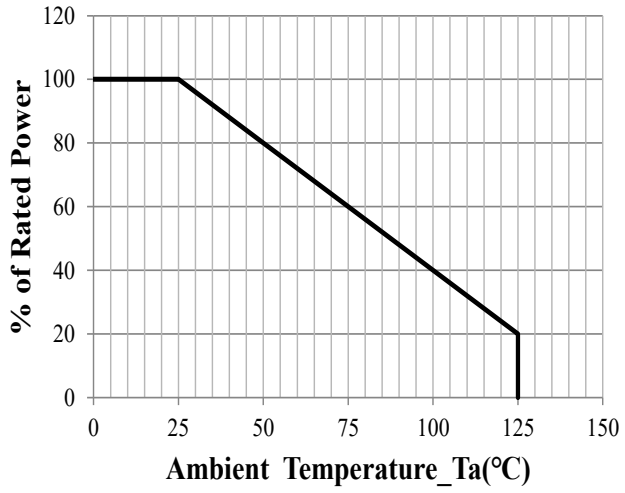
Clamping Voltage vs. Peak Pulse Current



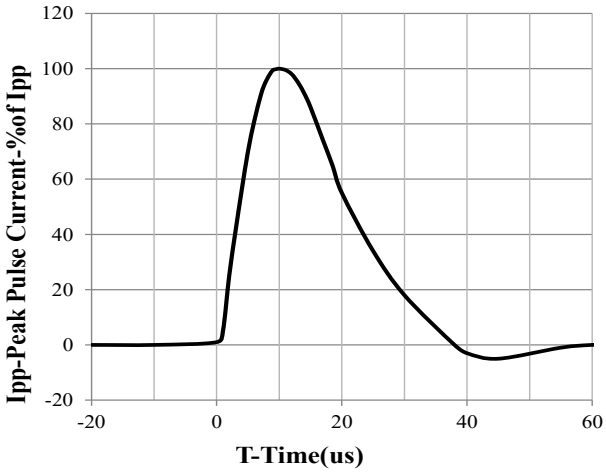
Peak Pulse Power vs. Pulse Time



IEC61000−4−2 Pulse Waveform

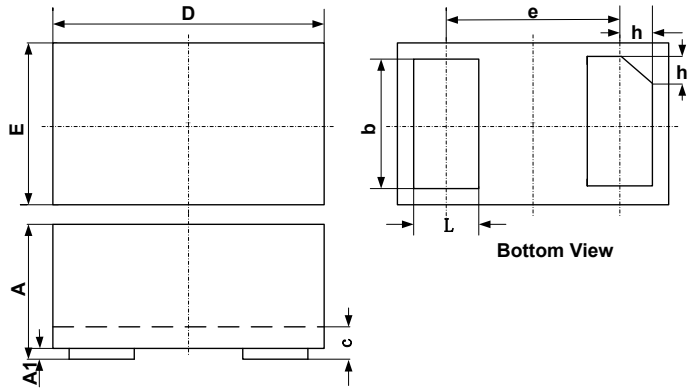


Power Derating Curve



8 X 20us Pulse Waveform

Outline Drawing – DFN0603-2(0201)



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230	0.300	0.330
A1	0.000	0.020	0.050
b	0.215	0.245	0.275
c	0.120	0.150	0.180
D	0.550	0.600	0.650
e	0.355 BSC		
E	0.250	0.300	0.350
L	0.160	0.190	0.220
h	0.079 BSC		