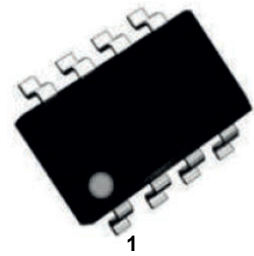
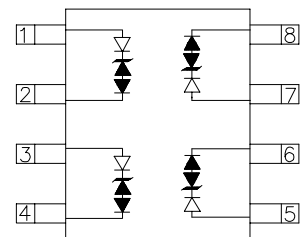


Features

- 600W peak pulse power (8/20μs)
- Protects two line pairs (four lines)
- Ultra low leakage: nA level
- Low operating voltage: 2.8V
- Very low capacitance: 2pF
- Ultra low clamping voltage
- JEDEC SOP-8 package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
 - IEC 61000-4-5 (Lightning) 30A (8/20μs)
- RoHS compliant



SOP-8



Schematic Diagram

Applications

- Base station
- Analog inputs
- Switch systems
- 10/100/1000 ethernet
- WAN/LAN equipment
- Desktops, servers, and notebooks
- Low voltage interfaces

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pk}	600	W
Peak Pulse Current (8/20μs)	I _{PP}	30	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}	-	-	-	2.8	V
Breakdown Voltage	V _{BR}	I _T =2μA	3.0	-	-	V
	V _{SB}	I _{SB} =50mA	3.0	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =2.8V	-	0.001	1	μA
Clamping Voltage	V _C	I _{PP} =5A (8 x 20μs pulse)	-	-	8.5	V
		I _{PP} =25A (8 x 20μs pulse)	-	-	18	V
		I _{PP} =30A (8 x 20μs pulse)	-	-	20	V
Junction Capacitance	C _J	V _R =0V, f=1MHz	-	2	3	pF

Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

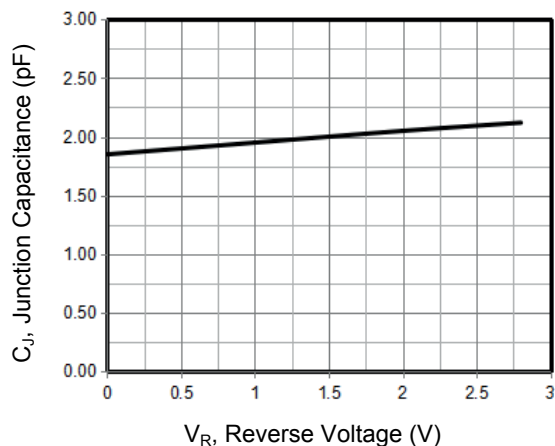


Figure 1. Junction Capacitance vs. Reverse Voltage

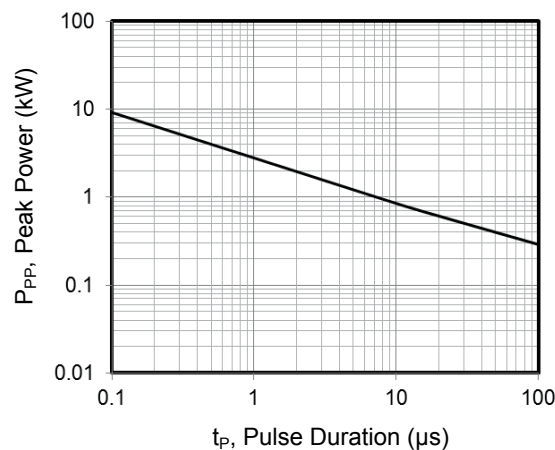


Figure 2. Peak Pulse Power vs. Pulse Time

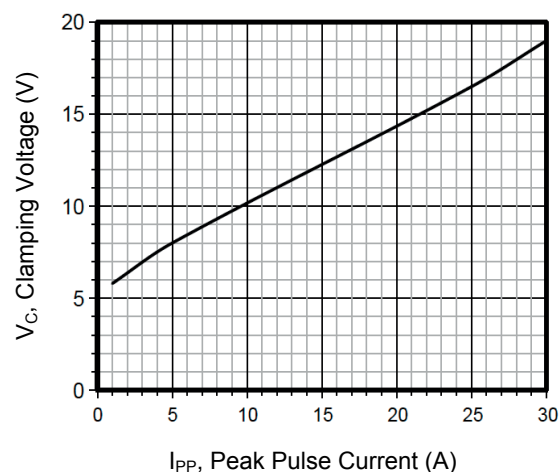


Figure 3. Clamping Voltage vs. Peak Pulse Current

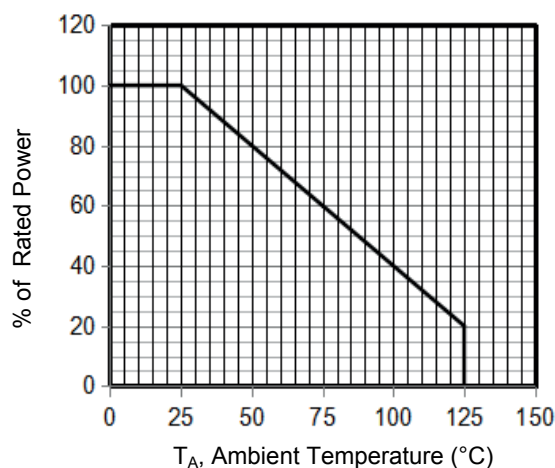


Figure 4. Power Derating Curve

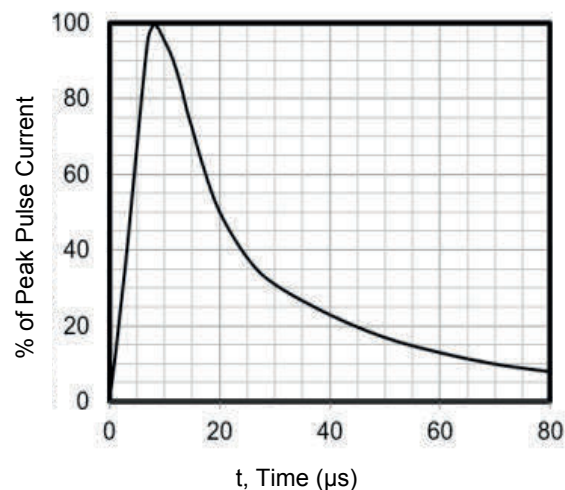
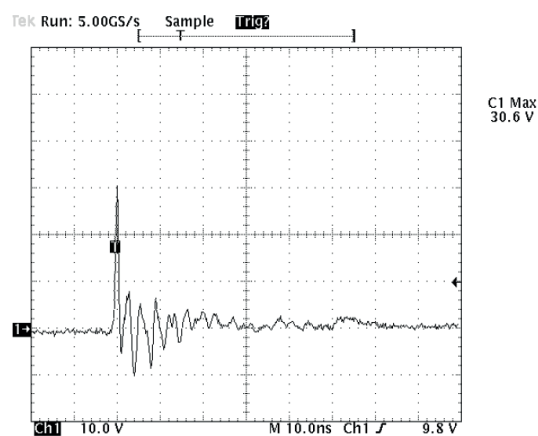


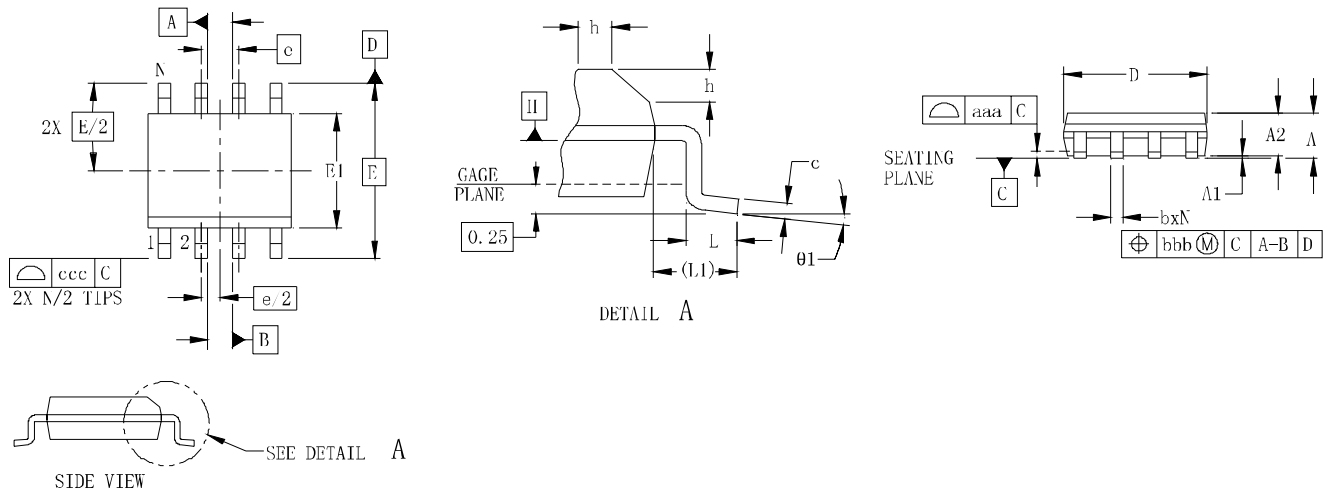
Figure 5. 8 X 20 μs Pulse Waveform



Note: Data is taken with a 10x attenuator

Figure 6. ESD Clamping Voltage
8kV Contact per IEC61000-4-2

Package Outline Dimensions (SOP-8)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.35	1.75	0.053	0.069
A1	0.10	0.25	0.004	0.010
A2	1.25	1.65	0.049	0.065
b	0.31	0.51	0.012	0.020
c	0.17	0.25	0.007	0.010
D	4.80	5.00	0.189	0.197
E1	3.80	4.00	0.150	0.157
E	6.00 BSC		0.236 BSC	
e	1.27 BSC		0.050 BSC	
h	0.25	0.50	0.010	0.020
L	0.40	1.04	0.016	0.041
L1	(1.04)		(0.041)	
N	8		8	
θ1	0°	8°	0°	8°
aaa	0.10		0.004	
bbb	0.25		0.010	
ccc	0.20		0.008	

Recommended Pad Layout

Symbol	Dimensions	
	Millimeters	Inches
C	(5.20)	0.205
G	3.00	0.118
P	1.27	0.050
X	0.60	0.024
Y	2.20	0.087
Z	7.40	0.291

Order Information

Device	Package	Marking	Carrier	Quantity
GSEQ2B020	SOP-8	2.8-4	Tape & Reel	2,500pcs / Reel