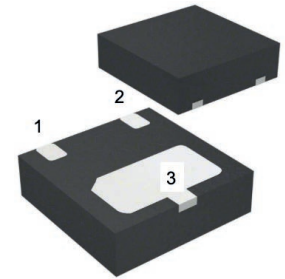
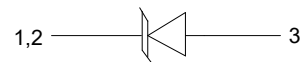


Features

- 6500W peak pulse power (8/20 μ s)
- Low leakage: nA level
- Operating voltage: 24V
- Ultra low clamping voltage
- One power line protects
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: \pm 30kV
Contact discharge: \pm 30kV
 - IEC 61000-4-5 (Lightning) 180A (8/20 μ s)
- RoHS Compliant



DFN2020-3L



Schematic Diagram

Applications

- Power management
- Industrial application
- Power supply protection

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μ s)	P _{pk}	6500	W
Peak Pulse Current (8/20 μ s)	I _{pp}	180	A
ESD Per IEC 61000-4-2 (Air)	V _{ESD}	\pm 30	kV
ESD Per IEC 61000-4-2 (Contact)		\pm 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}	-	-	24	-	V
Breakdown Voltage	V _{BR}	I _T =1mA	24.8	-	-	V
Reverse Leakage Current	I _R	V _{RWM} =24V	-	-	1.0	μ A
Clamping Voltage	V _C	I _{pp} =100A (8 x 20 μ s pulse)	-	-	30	V
		I _{pp} =180A (8 x 20 μ s pulse)	-	-	36	
Junction Capacitance	C _J	V _R =0V, F=1MHz	-	400	-	pF

Typical Characteristic Curves

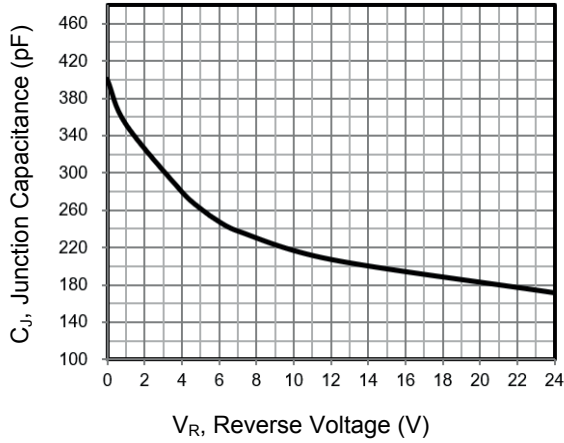


Figure 1. Junction Capacitance vs. Reverse Voltage

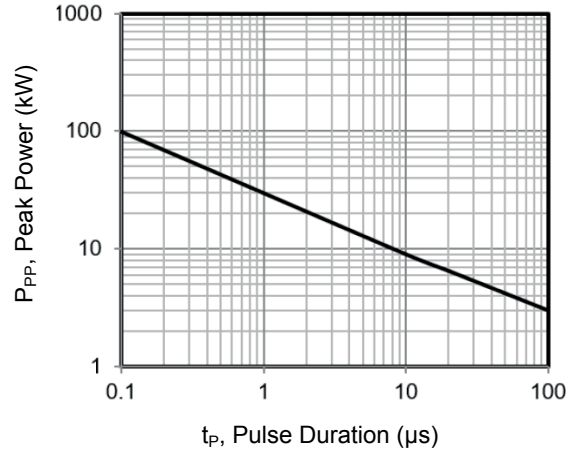


Figure 2. Peak Pulse Power vs. Pulse Time

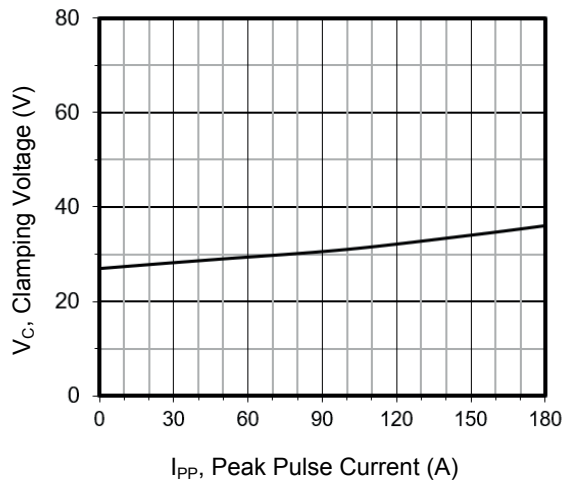


Figure 3. Clamping Voltage vs. Peak Pulse Current

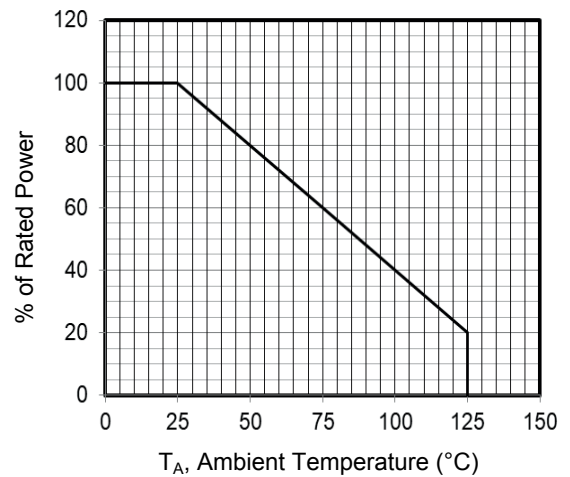


Figure 4. Power Derating Curve

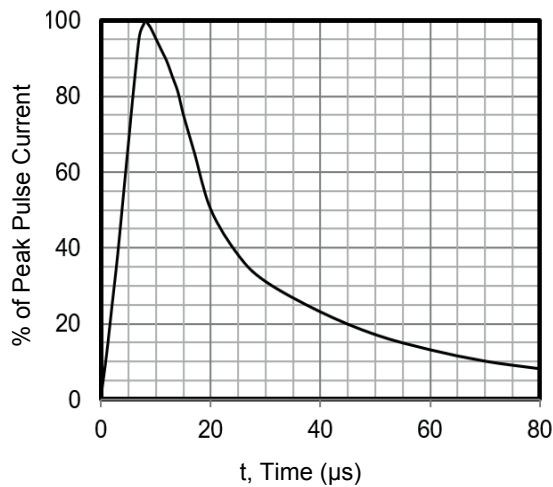


Figure 5. 8 X 20μs Pulse Waveform

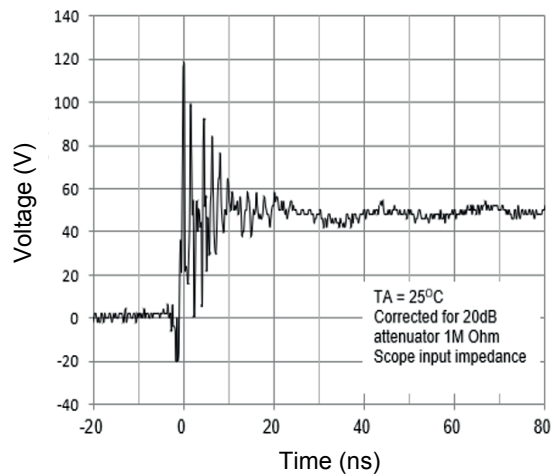
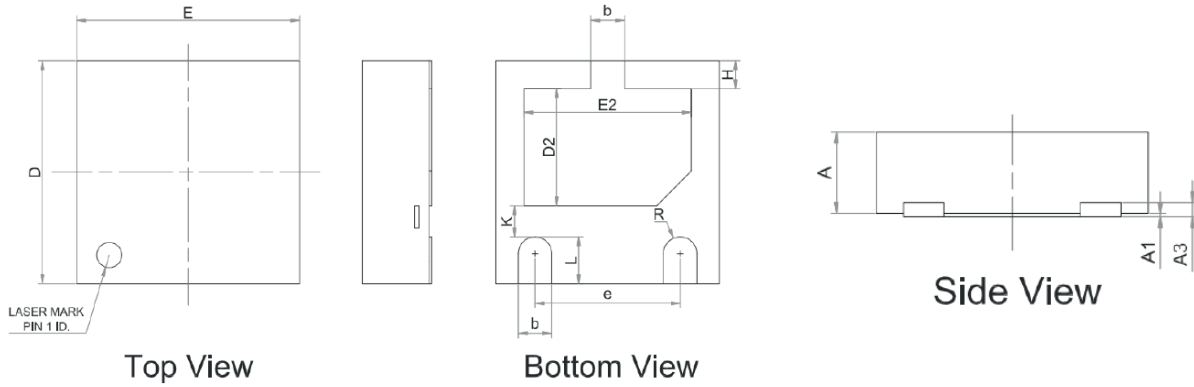


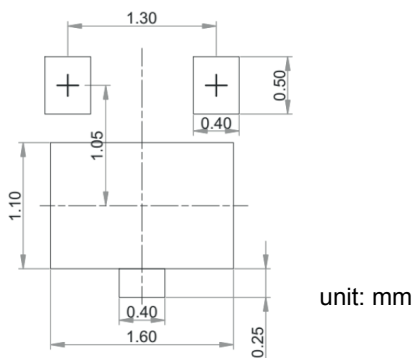
Figure 6. ESD Clamping Voltage
8kV Contact per IEC61000-4-2

Package Outline Dimensions (DFN2020-3L)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.55	0.65	0.022	0.026
A1	0.00	0.05	0.000	0.132
A3	0.10 REF		0.004 REF	
b	0.25	0.35	0.010	0.014
D	1.90	2.10	0.075	0.083
E	1.90	2.10	0.075	0.083
D2	0.95	1.15	0.037	0.045
E2	1.40	1.60	0.055	0.192
e	1.20	1.40	0.047	0.055
H	0.20	0.30	0.008	0.012
K	0.20	0.40	0.008	0.016
L	0.35	0.45	0.014	0.018
R	0.13	-	0.005	-

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSEPP24U4000	DFN2020-3L	P24	Tape & Reel	3,000 pcs / Reel