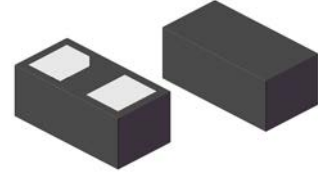


Features

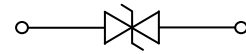
- 80 Watts peak pulse power ($T_P = 8/20 \mu\text{S}$)
- Bidirectional configuration
- Ultra low capacitance: 0.3pF typical
- Ultra low leakage: nA level
- Low clamping voltage
- Protection one data/power line to:
IEC 61000-4-2 $\pm 8\text{kV}$ contact, $\pm 15\text{kV}$ air



DFN0603

Applications

- Cellular handsets & Accessories
- Display ports
- MDDI ports
- USB ports
- Digital visual interface
- PCI express and serial SATA ports



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P = 8/20 \mu\text{S}$)	P_{PK}	80	W
ESD Contact / Air Discharge (IEC-61000-4-2)	V_{ESD}	$\pm 8 / \pm 15$	kV
Peak Pulse Current ($T_P = 8/20 \mu\text{S}$)	I_{PP}	1.5	A
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	26.5	-	-	V
Reverse Leakage Current	I_R	$V_{RWM}=24\text{V}$	-	-	0.5	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$ (8x20us pulse)	-	-	40	V
Clamping Voltage	V_C	$I_{PP}=1.5\text{A}$ (8x20us pulse)	-	-	53	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$	-	0.3	-	pF

Typical Characteristic Curves

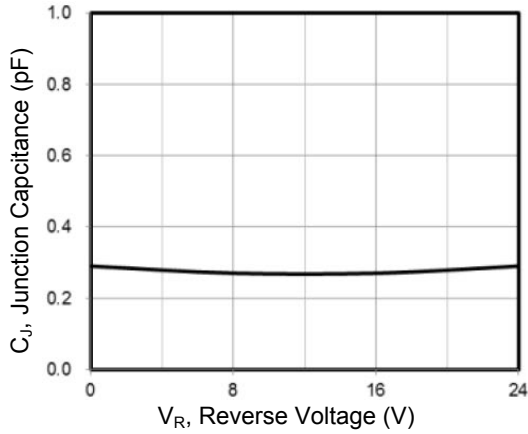


Figure 1. Junction Capacitance vs. Reverse Voltage

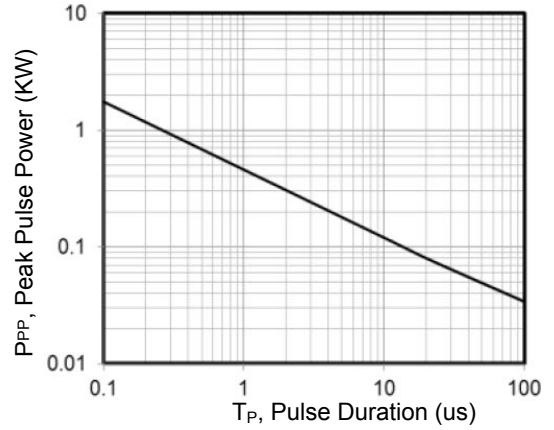


Figure 2. Peak Pulse Power Rating Curve

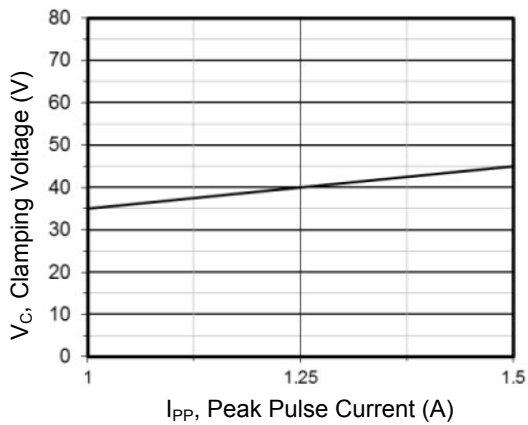


Figure 3. Clamping Voltage vs. Peak Pulse Current

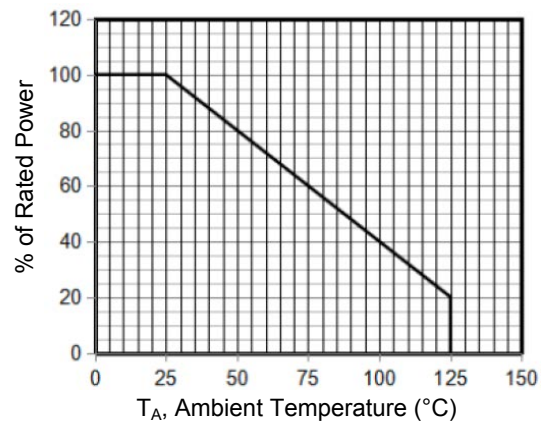


Figure 4. Power Derating Curve

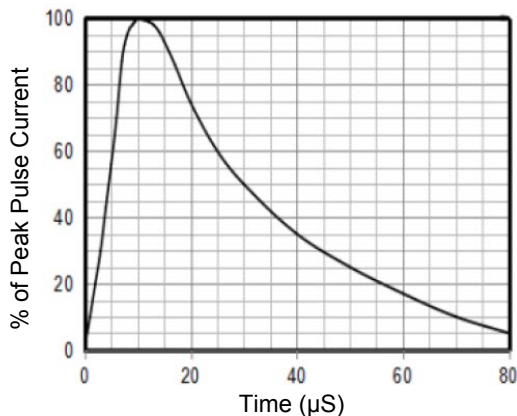


Figure 5. Pulse Waveform - 8x20 μs

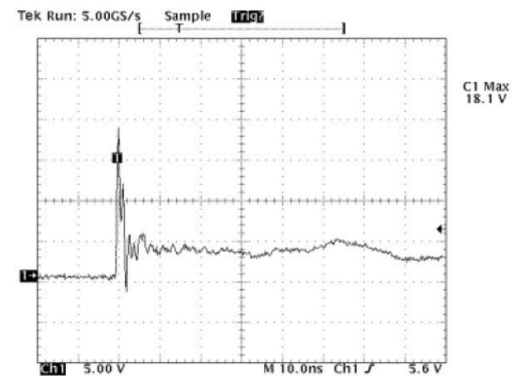
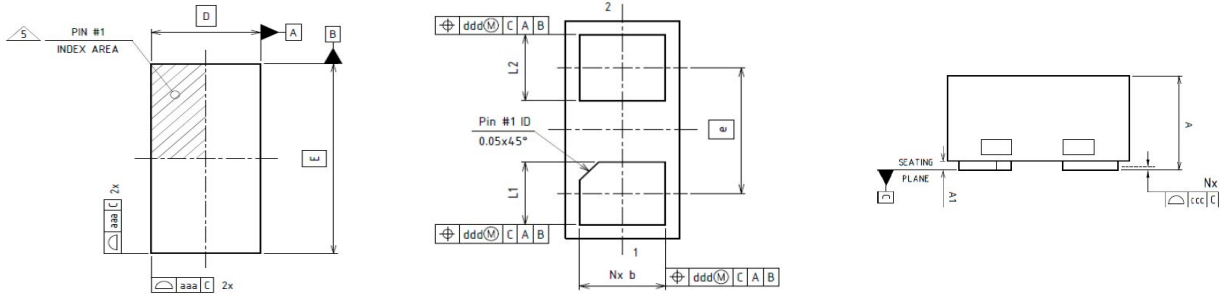


Figure 6. ESD Clamping Voltage
(8KV Contact per IEC61000-4-2)

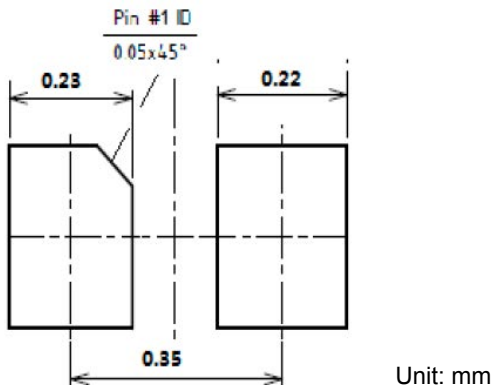
Note: Data is taken with a 10x attenuator

Package Outline Dimensions (DFN0603)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.280	0.320	0.011	0.013
A1	0.000	0.050	0.000	0.002
b	0.180	0.280	0.007	0.011
D	0.300 BSC		0.012 BSC	
E	0.600 BSC		0.024 BSC	
e	0.350 BSC		0.014 BSC	
L1	0.120	0.220	0.005	0.009
L2	0.130	0.230	0.005	0.009
aaa	0.050		0.002	
ccc	0.030		0.001	
ddd	0.100		0.004	

Recommended Pad Layout



Order Information

Device	Package	Marking	Carrier	Quantity
GSEN24B003	DFN0603	F	Tape & Reel	15,000 pcs / Reel