

GES5VDF-BN

ESD Protection Diode

VOLTAGE 5 Volt

FEATURES

- Protects one I/O or Power Line
- Low Clamping Voltage
- Working Voltage: 5V
- Low Leakage Current
- Response Time is Typically < 1 ns
- IEC 61000-4-2 ±30KV contact ; ±30KV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- Lead free in compliance with EU RoHS
- Marking code: C

MECHANICAL DATA

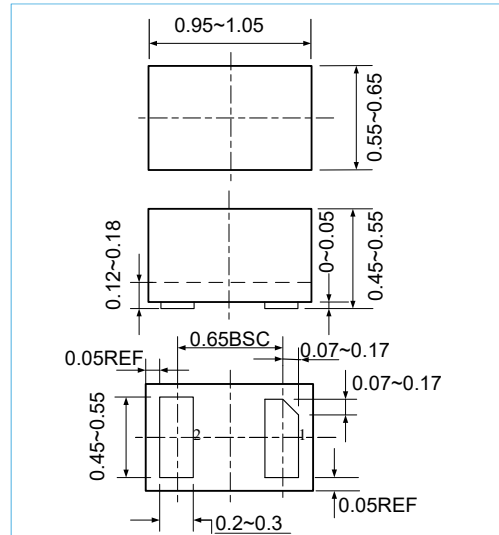
- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



Schematic Diagram

DFN1006-2L

Unit:mm

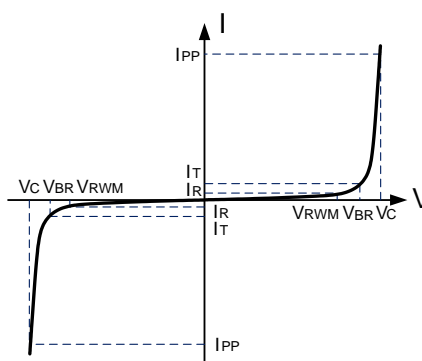


ABSOLUTE MAXIMUM RATINGS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{S}$)	P_{PP}	100	W
Peak Pulse Current ($T_P=8/20\mu\text{S}$)	I_{PP}	5	A
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Parameters ($T=25^\circ\text{C}$)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



ELECTRICAL CHARACTERISTICS($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6.0			V
Reverse Leakage Current	I_R	$V_R=5\text{V}$			0.2	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$			9.5	V
	V_C	$I_{PP}=5\text{A}$, $T_P=8/20\mu\text{S}$		13	15	V
Junction Capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$		7	10	pF

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Typical Characteristics

Figure 1: Peak Pulse Power Vs Pulse Time

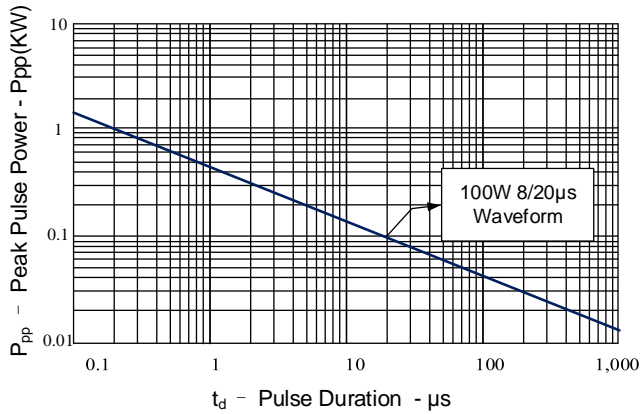


Figure 2: Power Derating Curve

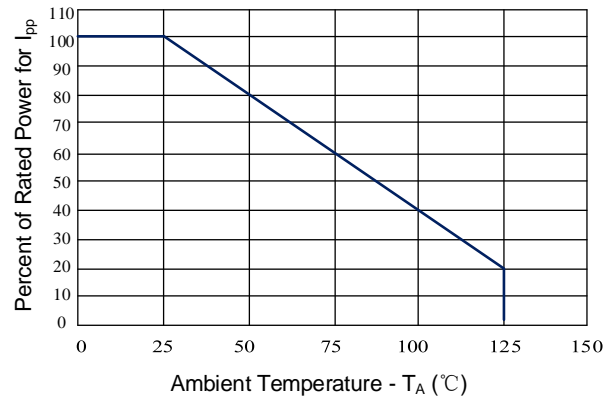


Figure 3: Clamping Voltage vs. Peak Pulse Current

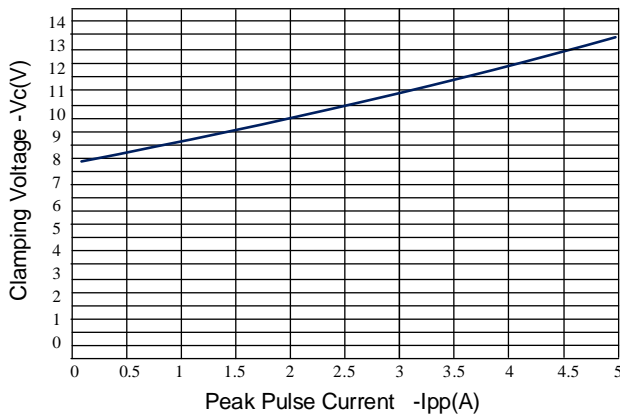


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

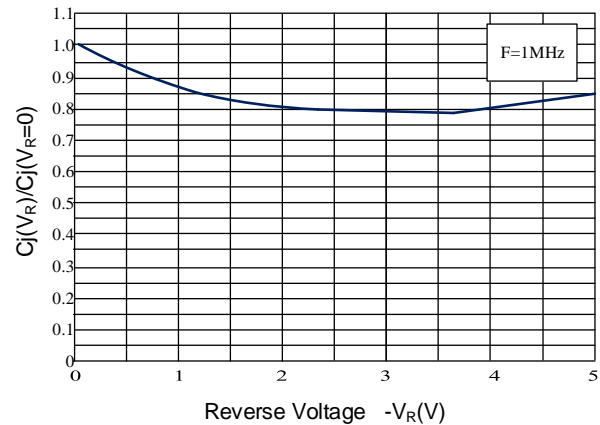


Figure 5: Pulse Waveform

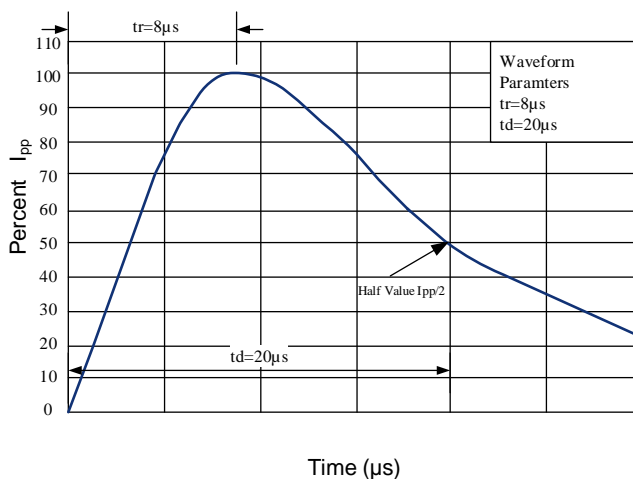
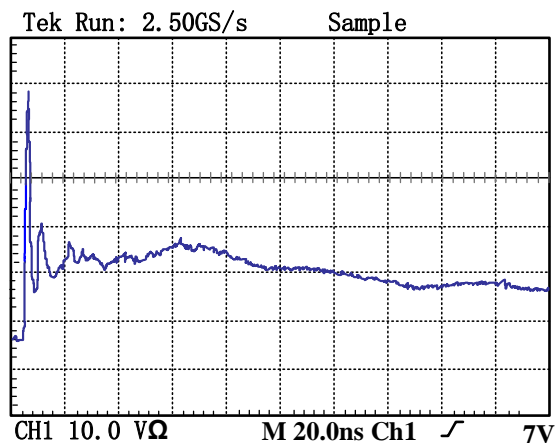


Figure 6: ESD Clamping (8kV Contact per IEC 61000-4-2)



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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
GES5VDF-BN	DFN1006-2L	7 Inch	10000