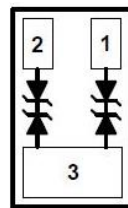


Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): ± 30 kV (air), ± 30 kV (contact)
 - IEC 61000-4-4 (EFT): 40A (5/50ns)
- 2 data-line protection
- Very low leakage Current

HF



DFN1006-3

Mechanical Data

- Case: DFN1006-3
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
GESD5V0BL3	DFN1006-3	10000 pcs / Tape & Reel	5B3

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

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	$V_{\text{ESD-A}}$	± 30	kV
IEC 61000-4-2; ESD (Contact)	$V_{\text{ESD-C}}$	± 30	kV
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	84	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	6	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	0.25	W
Thermal Resistance Junction-to-Air	$R_{\theta\text{JA}}$	400	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead	$R_{\theta\text{JL}}$	204	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case	$R_{\theta\text{JC}}$	240	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V _{RWM}		-	-	5	V
Reverse Breakdown Voltage	V _(BR)	I _T = 1mA	6.5	-	9	V
Reverse Leakage Current	I _R	V _{RWM} = 5V	-	-	1	μA
Clamping Voltage	V _C	I _{PP} = 1A, t _p = 8/20μs Pin1 or 2 to Pin3	-	-	9.5	V
		I _{PP} = 6A, t _p = 8/20μs Pin1 or 2 to Pin3	-	-	14	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHZ Pin1 or 2 to Pin3	-	15	20	pF
		V _R = 0V, f = 1MHZ Between Pin1 and Pin2	-	7.5	10	pF

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

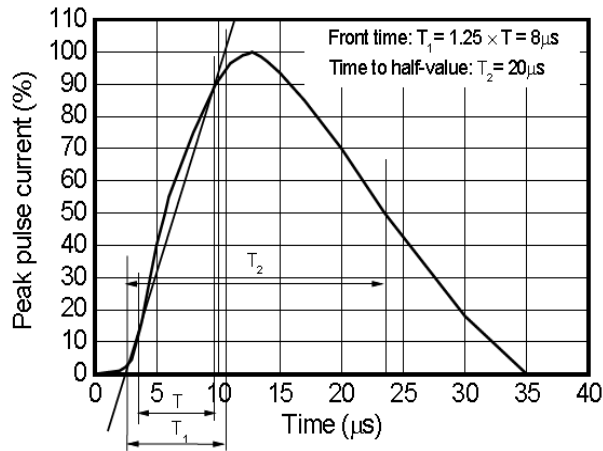


Fig 1 8/20 μs waveform per IEC61000-4-5

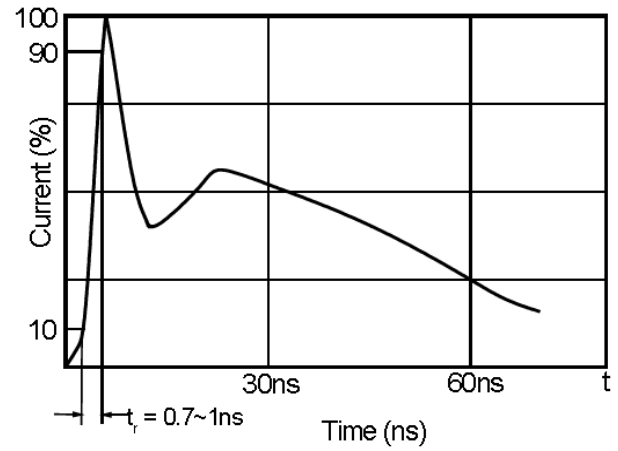


Fig 2 ESD pulse waveform according to IEC61000-4-2

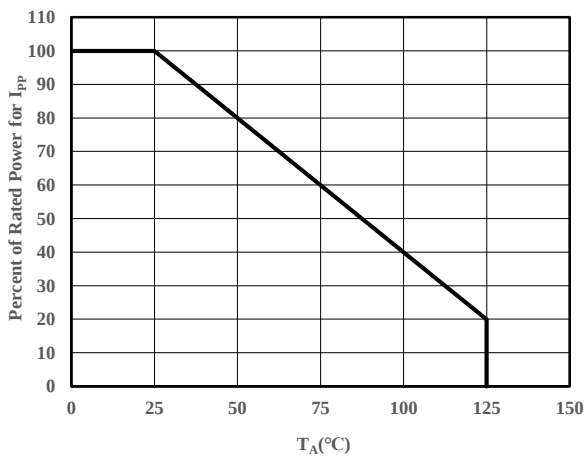


Fig 3 Power Derating Curve

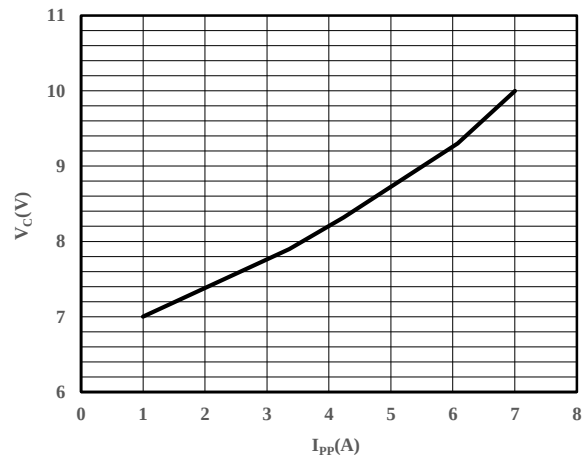


Fig 4 Clamping Voltage vs. Peak Pulse Current

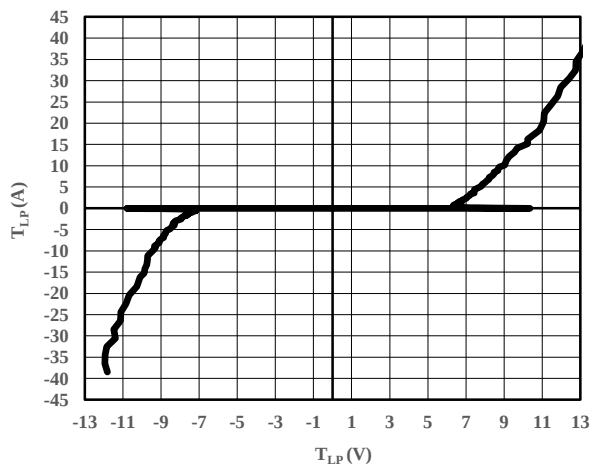
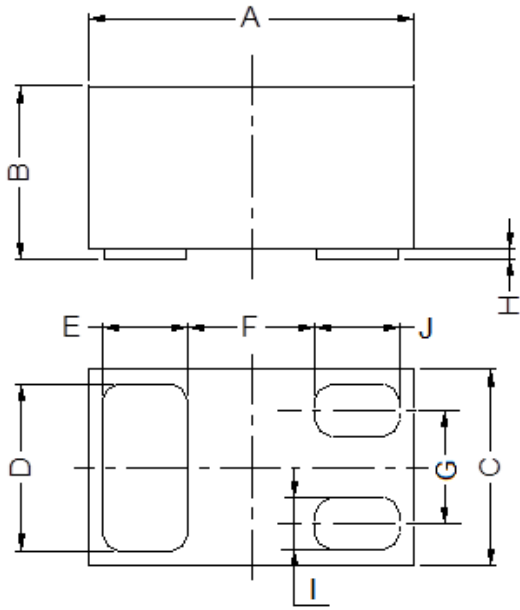


Fig 5 TLP Measurement

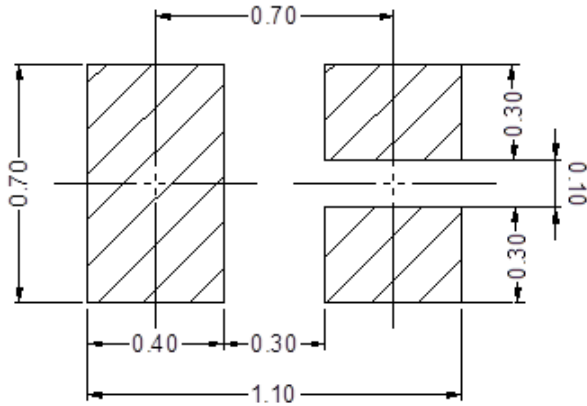
Package Outline Dimensions (Unit: mm)



DFN1006-3			
Dimension	Min.	Typ.	Max.
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E/J	0.20	0.25	0.30
F	-	0.40	-
G	-	0.35	-
H	0	0.03	0.05
I	0.10	0.15	0.20

Package Outline Dimensions (Unit: mm)

DFN1006-3



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