1-Line, Bi-directional, Transient Voltage Suppressor

Features

- Stand-off voltage: ±5V Max
- Transient protection for each line according to
  IEC61000-4-2(ESD): ±30kV (contact)
  IEC61000-4-4 (EFT): 80A (5/50ns)
  IEC61000-4-5(surge): 85A (8/20μs)
- Ultra-low capacitance: C_J = 180pF typ
- Low leakage current
- Low clamping voltage: V_{CL} =7V typ. @ I_{PP} = 16A (TLP)
- Solid-state silicon technology

Mechanical Data

- **Package**: DFN1006-2L
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** No marking on bi-directional types
- **Marking:**

■Definitions of electrical characteristics

ESD5V0LBA3

■Maximum Ratings

PARAMETER	SYMBOL	Rating	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	980	W
Peak pulse current (t_p = 8/20μs)	I_{PP}	85	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±30	KV
ESD according to IEC61000-4-2 contact discharge		±30	KV
Junction temperature	T_J	125	°C
Operating temperature	T_{OP}	-40~85	°C
Storage temperature	T_{STG}	-55~150	°C

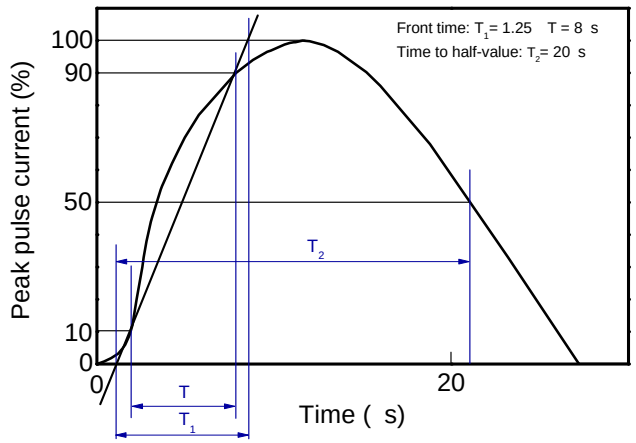
■Electrical Characteristics T_a=25 ł Unless otherwise specified

PARAMETER	Symbol	UNIT	Co ns	Min	Typ	Max
						±5
						1
				5.1		
					7	
					0.05	
					8	
					5.5	7.5

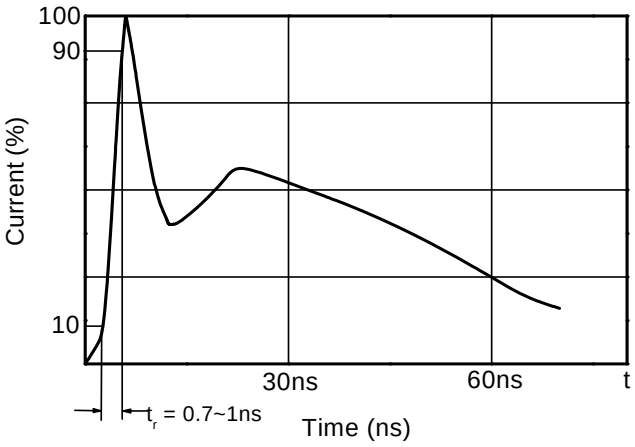
7 9 Š

■ Characteristics (Typical)

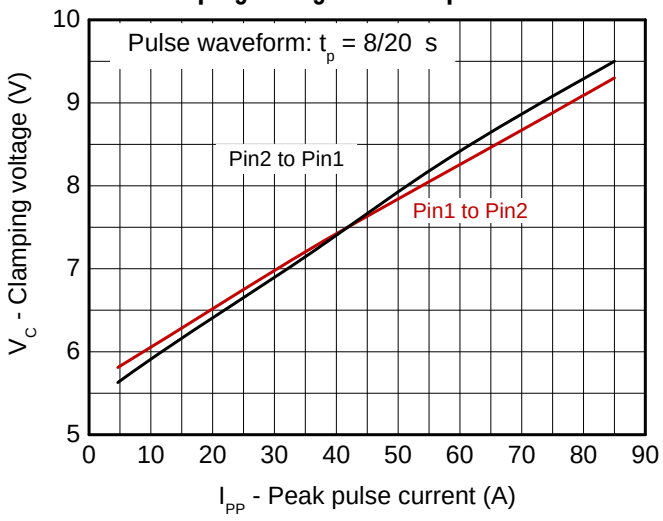
8/20 s waveform per IEC61000-4-5



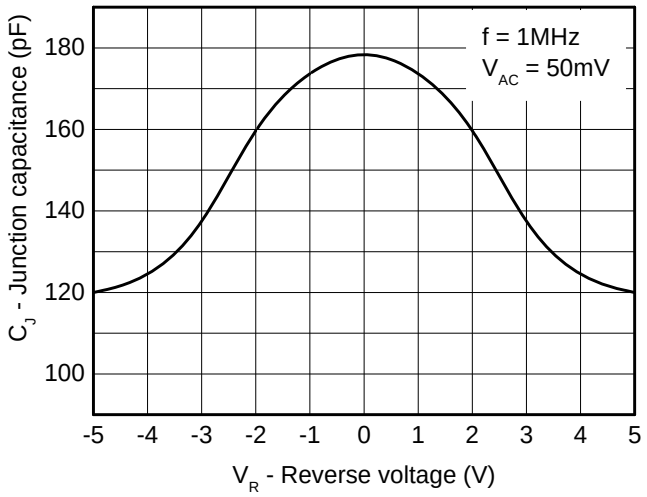
Contact discharge current waveform per IEC61000-4-2



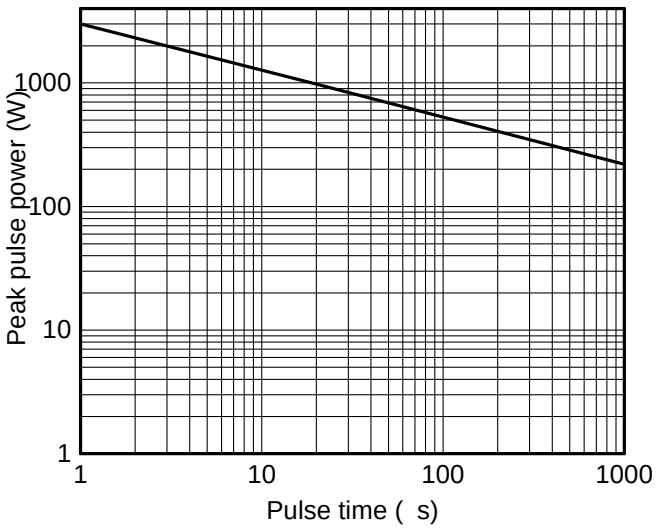
Clamping voltage vs. Peak pulse current



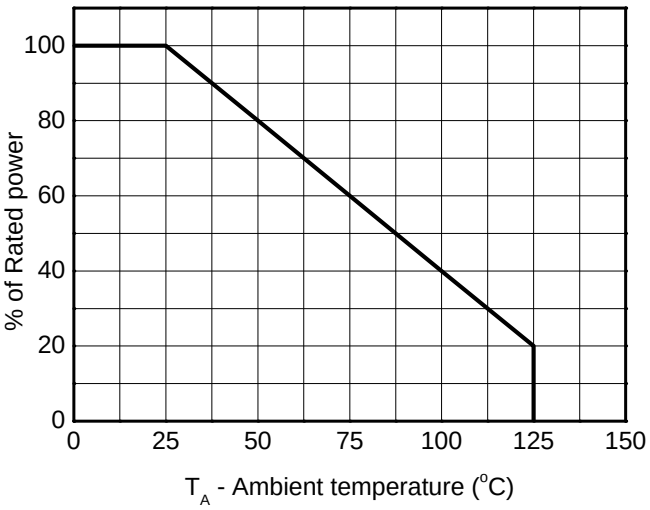
Capacitance vs. Reverse voltage



Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature



ESD clamping **ESD clamping**

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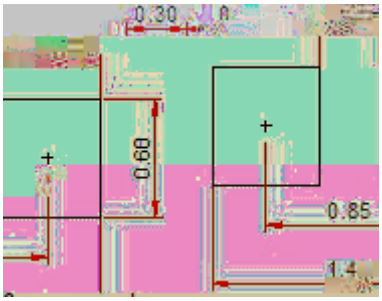
ÿ Recommend land pattern (Unit:mm)



Notes:
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met

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