

DESCRIPTION

The JSD4V5FDT is a transient voltage suppressor designed to protect power interfaces. It is suitable to replace multiple discrete components in portable electronics.

The JSD4V5FDT is specifically designed to protect power lines.

The JSD4V5FDT is available in DFN1610-2L package. Standard products are Pb-free and Halogen-free.

FEATURES

- ◇ Transient protection for high-speed data lines
IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (Contact)
IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (Air)
- ◇ Peak power dissipation: 3400W (8/20 μs)
- ◇ Working voltage: 4.5V
- ◇ Ultra-small package (1.6mm \times 1.0mm \times 0.5mm)
- ◇ Solid-state silicon technology
- ◇ Low clamping voltage

MACHANICAL DATA

- ◇ DFN1610-2L package
- ◇ Flammability Rating: UL 94V-0
- ◇ Packaging: Tape and Reel
- ◇ High temperature soldering guaranteed:
260 $^{\circ}\text{C}$ /10s
- ◇ Reel size: 7 inch

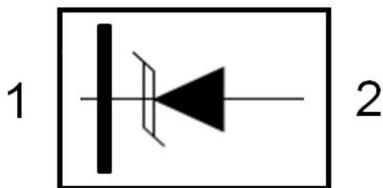
ORDERING INFORMATION

- ◇ Device: JSD4V5FDT
- ◇ Package: DFN1610-2L
- ◇ Marking: H4N
- ◇ Material: Halogen free and RoHS compliant
- ◇ Packing: Tape & Reel
- ◇ Quantity per reel: 3,000pcs

APPLICATIONS

- ◇ Power management
- ◇ Power supply protection

PIN CONFIGURATION



PACKAGE OUTLINE

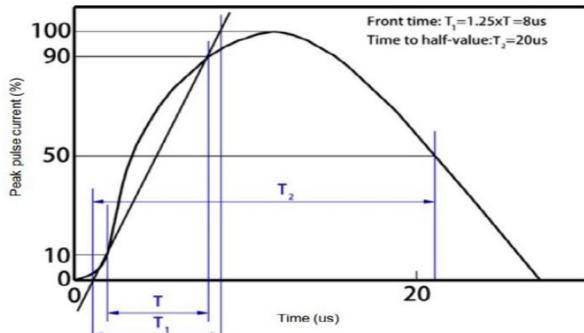
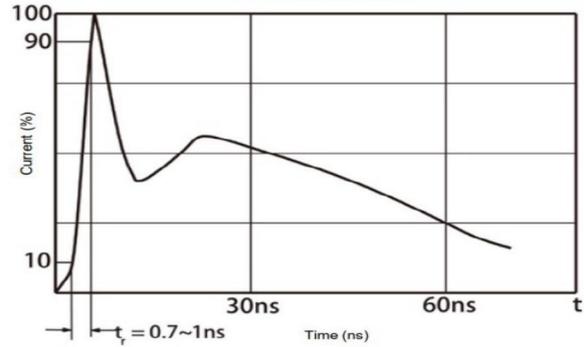
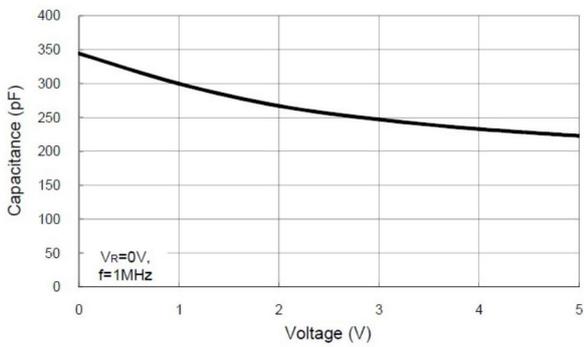
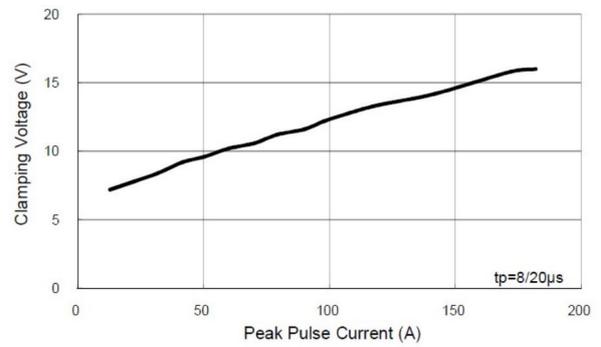


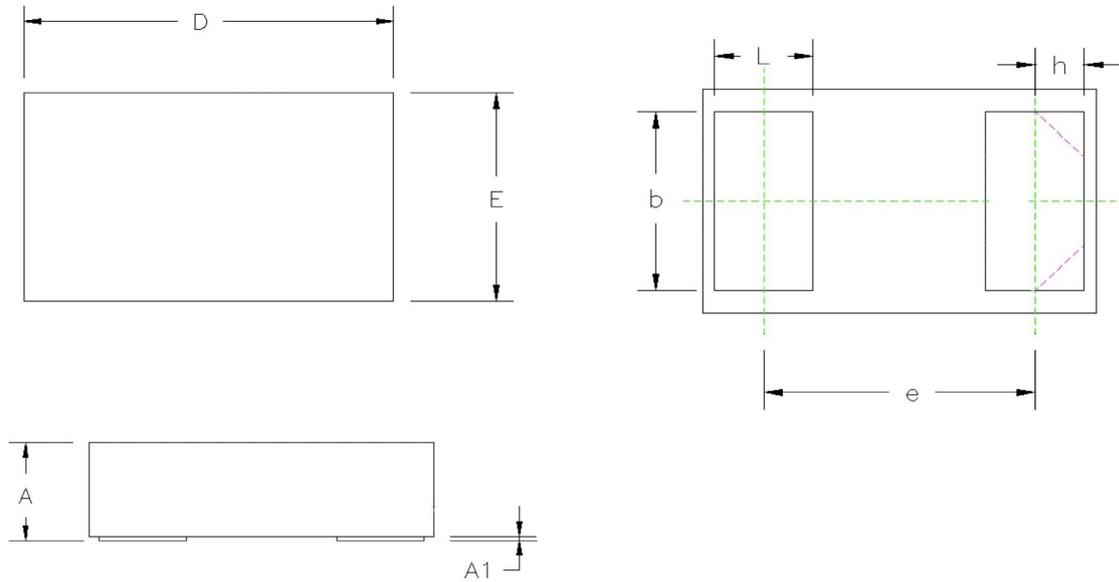
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Contact)	± 30	kV
	ESD per IEC 61000-4-2 (Air)	± 30	
P_{PP}	Peak Pulse Power (8/20 μ s)	3400	W
I_{PP}	Peak Pulse Current (8/20 μ s)	170	A
T_J	Junction Temperature	125	$^{\circ}$ C
T_{STG}	Storage Temperature	-55~150	$^{\circ}$ C

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}$ C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				4.5	V
V_{BR}	Reverse Breakdown Voltage	$I_r = 1mA$	5		7	V
I_r	Reverse Leakage Current	$V_{RWM} = 4.5V$			100	nA
V_C	Clamping Voltage	$I_{PP} = 50A, t_p = 8/20\mu s$			15	V
		$I_{PP} = 170A, t_p = 8/20\mu s$			20	V
C_J	Junction Capacitance	$V_R = 0V, f = 1MHz$		350	400	pF

ELECTRICAL CHARACTERISTICS CURVE
Fig 1 8/20 μ s Waveform per IEC61000-4-5

Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2

Fig 3 Voltage vs Capacitance

Fig 4 Peak Pulse Current vs Clamping Voltage


DFN1610-2L PACKAGE OUTLINE DIMENSIONS


COMMON DIMENSION (mm)			
REF	Min	Nom	Max
D	1.55	1.60	1.65
E	0.95	1.00	1.05
L	0.35	0.40	0.45
b	0.75	0.80	0.85
e	1.1BSC		
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
h	0.15	0.20	0.25