

### Features

- 1700 Watts Peak Pulse Power per Line (tp=8/20µs)
- Protects One Unidirectional Line
- Low clamping voltage
- Working voltages : 24V
- Low leakage current
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge: ±30kV  
Contact discharge: ±30kV
  - IEC61000-4-5 (Lightning) 30A (8/20µs)
- RoHS Compliant

### Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

### Mechanical Characteristics

- DFN1610TN Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 3.5 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Device Marking: UTE

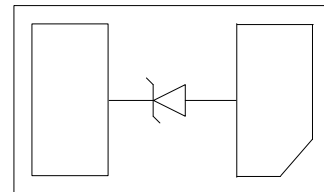
### Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	P <sub>pp</sub>	1700	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

### Dimensions DFN1610TN



### Pin Configuration

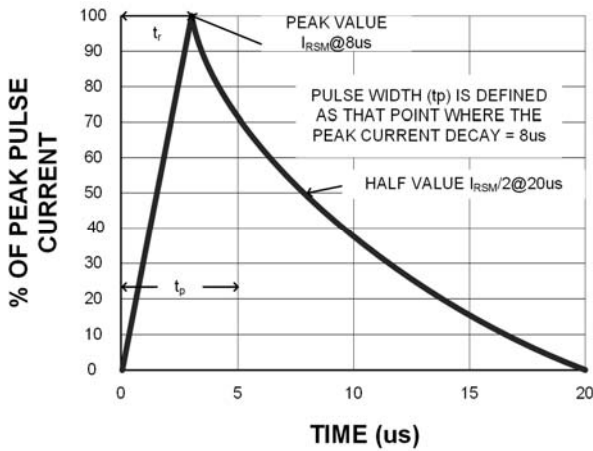


**Electrical Characteristics** (TA=25°C unless otherwise specified)

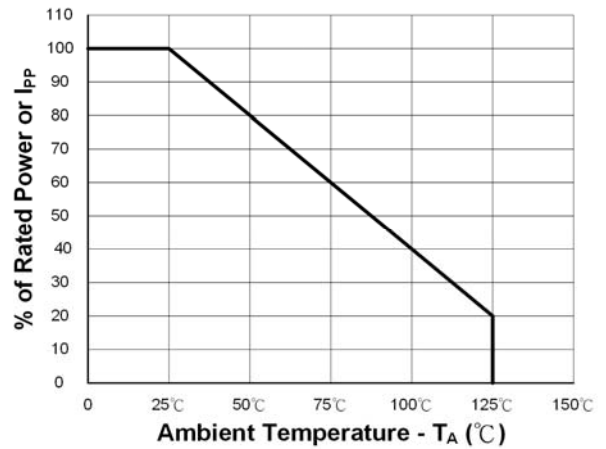
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				24	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	26	28	31	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 24V$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ (8 x 20 $\mu s$ pulse)			33	V
Clamping Voltage	$V_C$	$I_{PP} = 30A$ (8 x 20 $\mu s$ pulse)			55	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$		200	300	pF

**Typical Performance Characteristics** (TA=25°C unless otherwise specified)

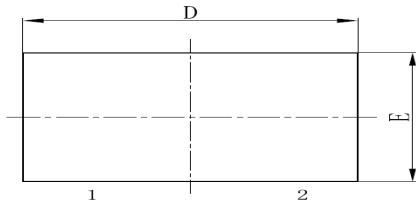
**Figure 1. 8 x 20  $\mu s$  Waveform**



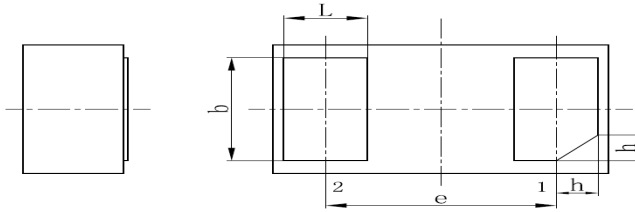
**Figure 2. Power Derating Curve**



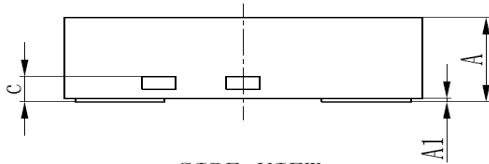
## DFN1610TN Package Outline Drawing



TOP VIEW



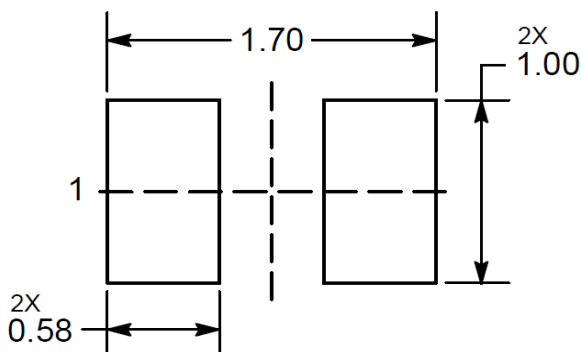
BOTTOM VIEW



SIDE VIEW

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	—	0.02	0.05
b	0.75	0.80	0.85
c	0.10	0.15	0.20
D	1.55	1.60	1.65
e	1.10BSC		
E	0.95	1.00	1.05
L	0.35	0.40	0.45
h	0.15	0.20	0.25

## Suggested Land Pattern



Note:  
Controlling dimensions are in millimeter (mm)

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