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## CESD1610HC15VU

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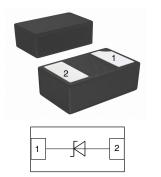
### **ESD/Surge Protection Diode in DFN1610**

#### Features

- 1600 Watts peak pulse power (tp = 8/20µs)
- DFN1610 package
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Normal capacitance (Cj=500pF)
- Protection one data/power line to: IEC 61000-4-2 ±30kV contact ±30kV air IEC 61000-4-4 (EFT) 55A (5/50ns) IEC 61000-4-5 (Lightning) 45A (8/20 μs)

#### **Mechanical Data**

- Case: DFN1610 (plastic package) Lead free; RoHS compliant
- Molding Compound Flammability Rating: UL 94 V-0
- **Terminals:** High temperature soldering guaranteed: 260 °C/10 sec. at terminals



#### Applications

- Charager Protection
- Parallel & Serial Port Protection
- Personal Digital Assistant (PDA)
- Microcontroller Input Protection
- Cellular Phones
- I<sup>2</sup>C Bus Protection

#### **Absolute Maximum Ratings**

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power (T <sub>P</sub> =8/20µS)	P <sub>PP</sub>	1500	W
ESD contact/air discharge (IEC-61000-4-2)	V <sub>ESD</sub>	30/30	kV
Peak Pulse Current ( tP = 8/20µS )	I <sub>PP</sub>	45	А
Junction Temperature	TJ	-40 to +125	°C
Storage temperature	T <sub>STG</sub>	-55 to +150	°C

#### **Electrical Characteristics**

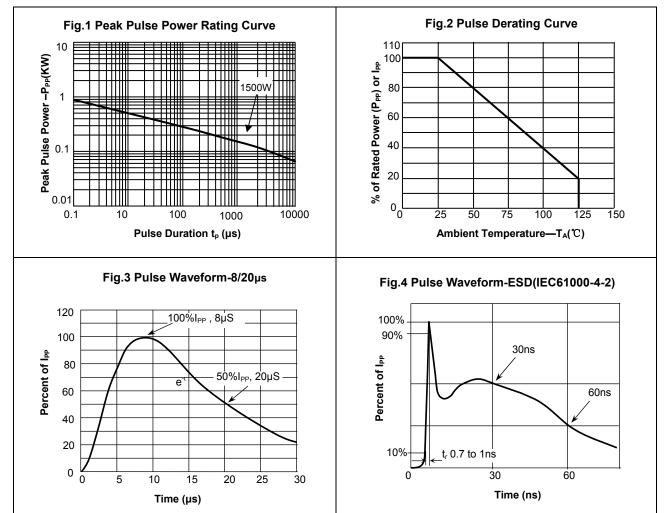
 $(T_A = 25 \ ^{\circ}C \text{ unless otherwise specified})$ 

Parameter	Symbol	Condition	Min	Тур	Мах	Unit
Reverse stand-off Voltage	V <sub>RWM</sub>				15	V
Reverse Breakdown Voltage	$V_{BR}$	I⊤=1mA	16.5			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =15V			1	uA
Clamping Voltage (IEC 61000-4-5)	Vc	I <sub>PP</sub> =1A			20	V
Clamping Voltage (IEC 61000-4-5)	Vc	I <sub>PP</sub> =20A			25.5	V
Clamping Voltage (IEC 61000-4-5)	Vc	I <sub>PP</sub> =45A			34	V
Junction Capacitance	CJ	V <sub>R</sub> =0V, f=1MHz		500		pF



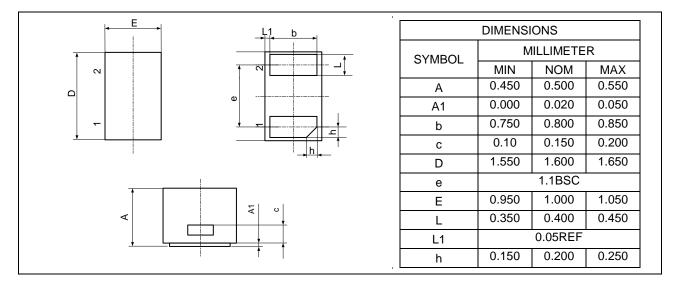
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#### Typical Characteristics ( $T_{amb}$ = 25 °C unless otherwise specified)

#### **Package Dimensions**

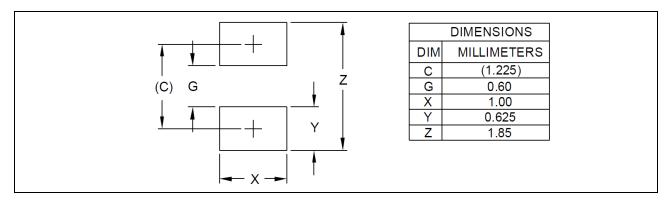




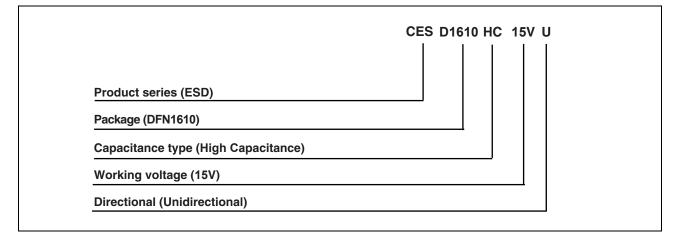
### CESD1610HC15VU

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#### **Pad Dimensions**



#### Part number system



#### **Ordering information**

Order code	Marking	Package	Packaging option	Base quantity	Weight	Packaging specification
CESD1610HC15VU	UTC	DFN1610	Tape and reel	3000pcs / reel	3.5mg	EIA STD RS-481

#### **Revision history**

Date	Revision	Changes
23-May-2012	1.0	Initial release

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