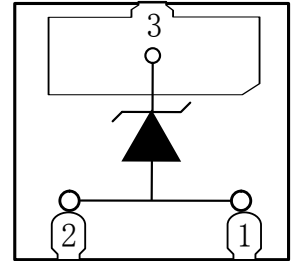


## EOS/ESD Protection Diode in DFN-2020-3L

### Features

- 5000 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- DFN-2020-3L package
- Unidirectional configurations
- Low clamping voltage
- Low leakage current
- Medium capacitance ( $C_j = 1700\text{pF typ.}$ )
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 30\text{kV}$  contact  $\pm 30\text{kV}$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 240A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** DFN-2020-3L (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

- Power lines
- USB Vbus Industrial Electronics
- Industrial Electronics
- Microcontroller Input Protection
- Computer & Consumer Electronics
- Automotive and Telecommunication

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

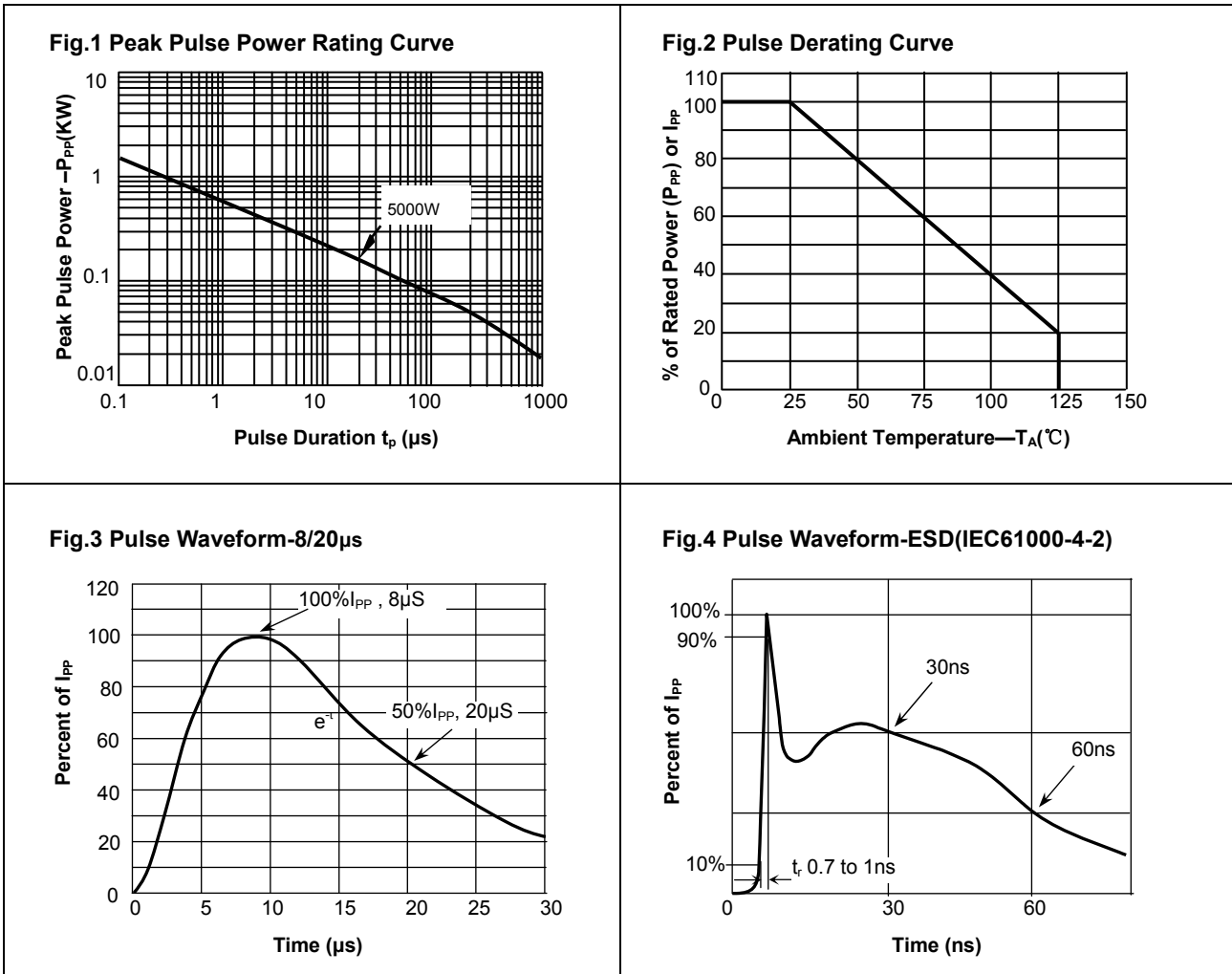
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_p=8/20\mu s$ )	$P_{PP}$	5000	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	30/30	kV
Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{PP}$	240	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics

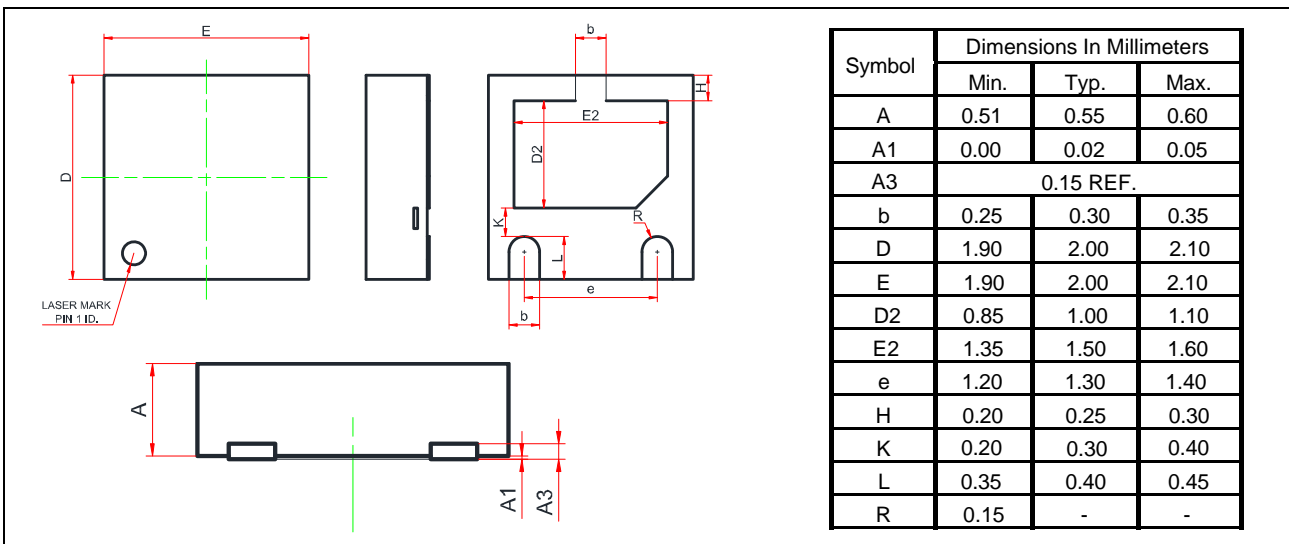
( $T_A = 25\text{ °C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				7.5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$		9		V
Reverse Leakage Current	$I_R$	$V_R = 7\text{V}$			1	$\mu\text{A}$
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP} = 50\text{A}$			12.5	V
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP} = 100\text{A}$			15.5	V
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP} = 240\text{A}$			23	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}, f = 1\text{MHz}$		1700		pF

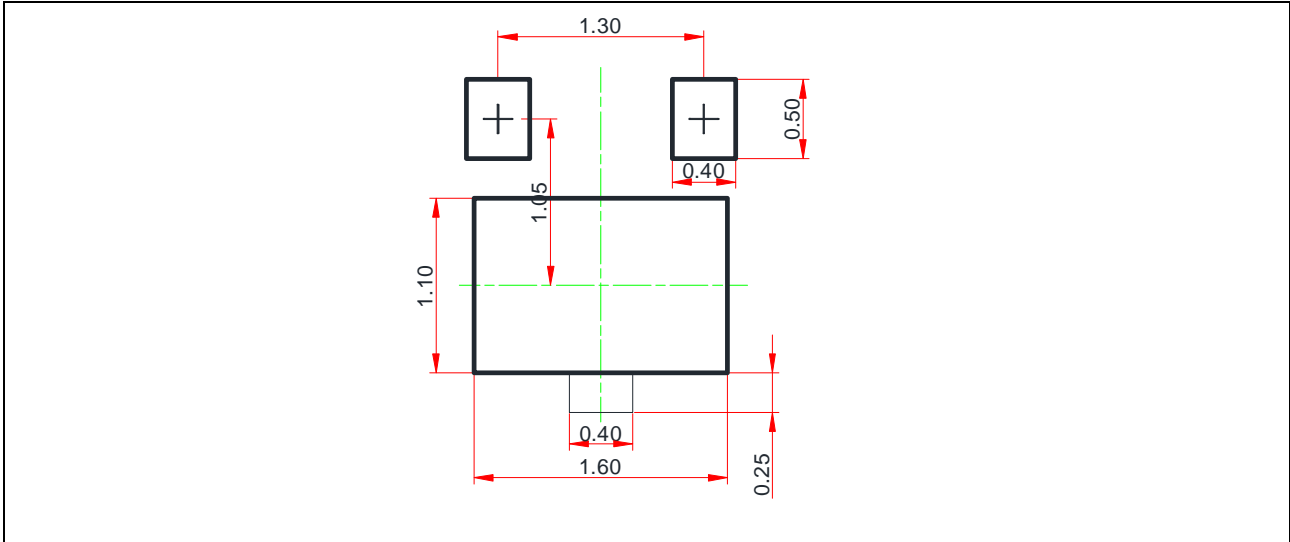
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



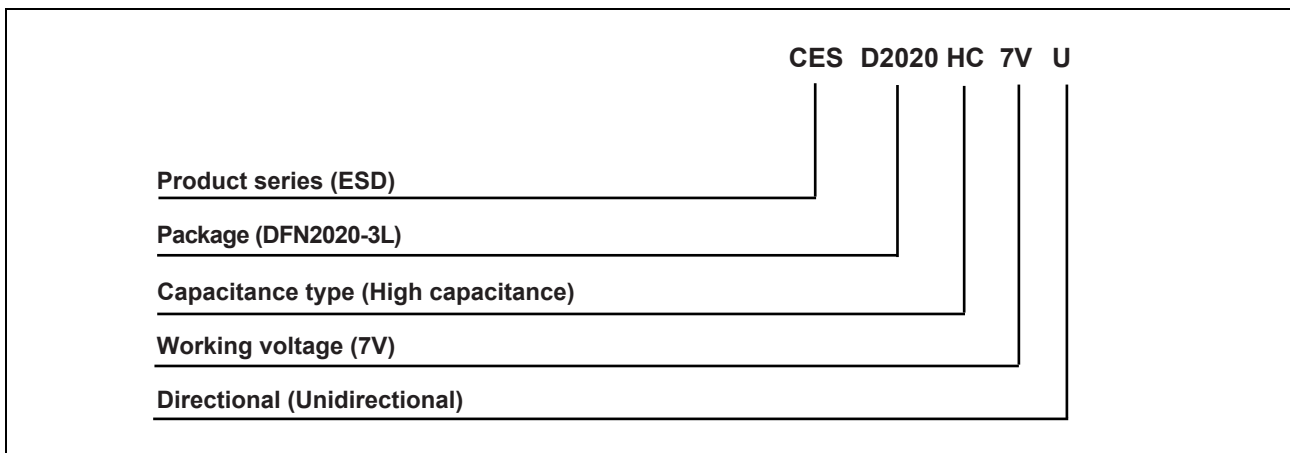
**Package Dimensions**



## PAD Dimensions



## Part number system



## Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
CESD2020HC7VU	T07	DFN2020-3L	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2016	1.0	Initial release

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