

## ESD7V0D2020-3

### Description

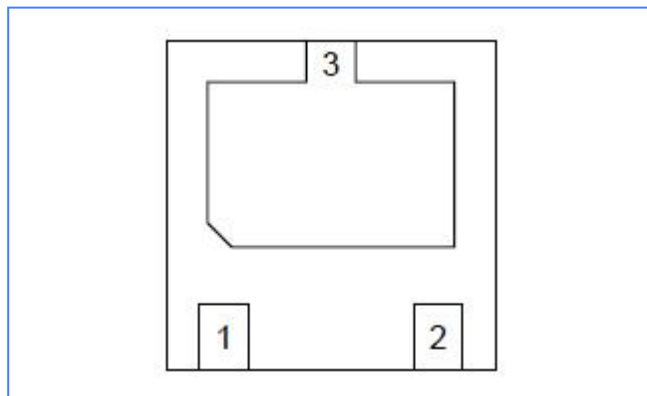
1-Line High Power TVS Diode

### Features

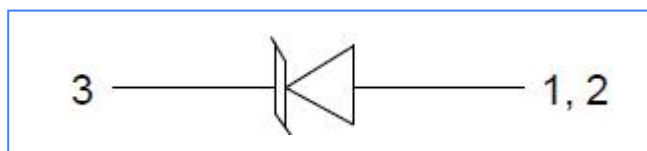
- 4000W peak pulse power (8/20 $\mu$ s)
- Low leakage: nA level
- Low operating voltage: 7V
- Ultra low clamping voltage
- One power line protects
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30$ kV
    - Contact discharge:  $\pm 30$ kV
  - IEC61000-4-4 (EFT) 80A (5/50ns)
  - IEC61000-4-5 (Lightning) 180A (8/20 $\mu$ s)

### Applications

- Power Management
- Industrial Application
- Power Supply Protection



### Functional Diagram



### Mechanical Characteristics

- Package: DFN2020-3
- Lead Finish: NiPdAu
- Case Material: "Green" Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

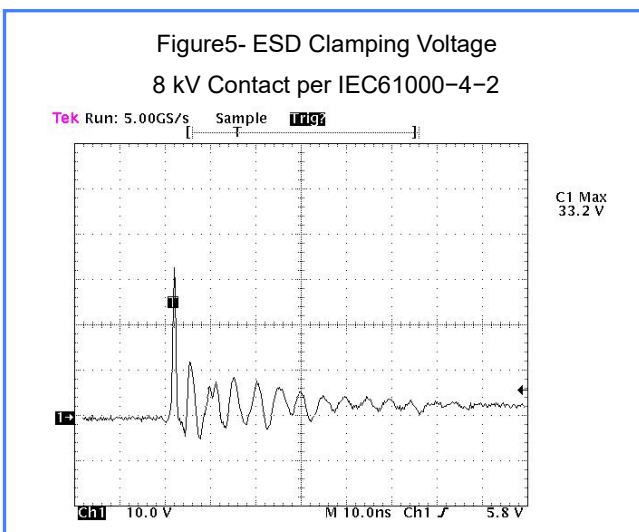
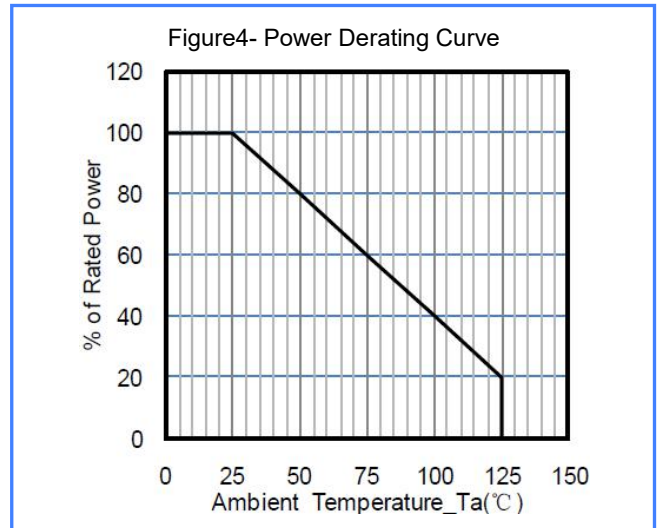
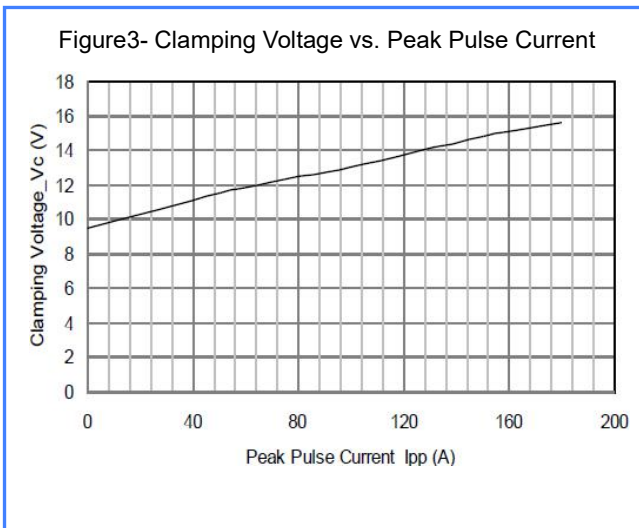
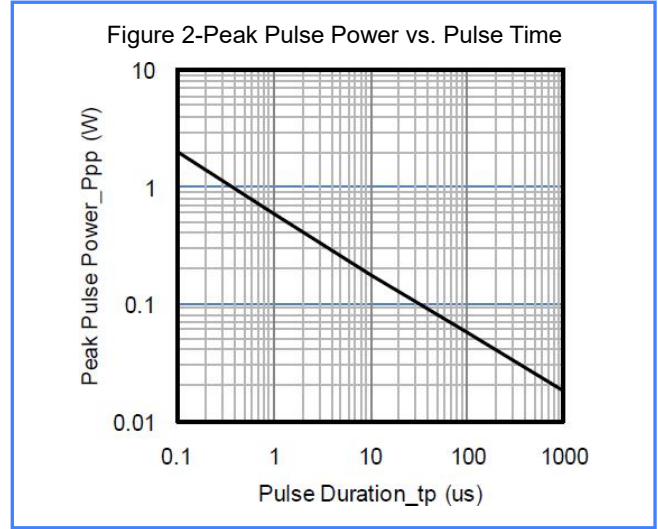
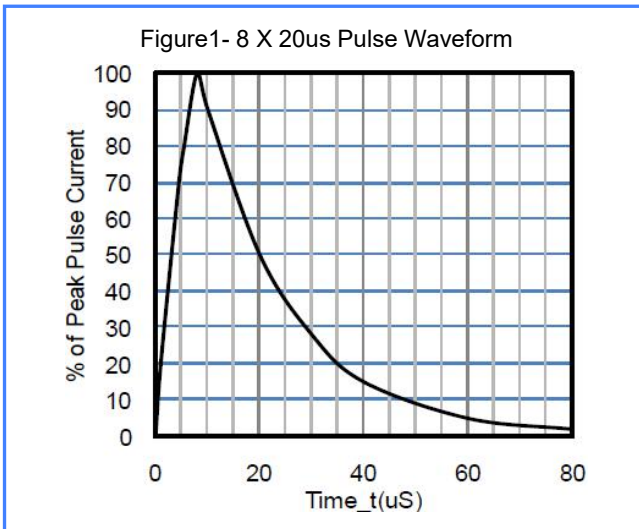
### Absolute Maximum Ratings(T<sub>amb</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu$ s)	P <sub>PP</sub>	4000	Watts
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 30$	KV
ESD per IEC 61000-4-2 (Contact)		$\pm 30$	KV
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

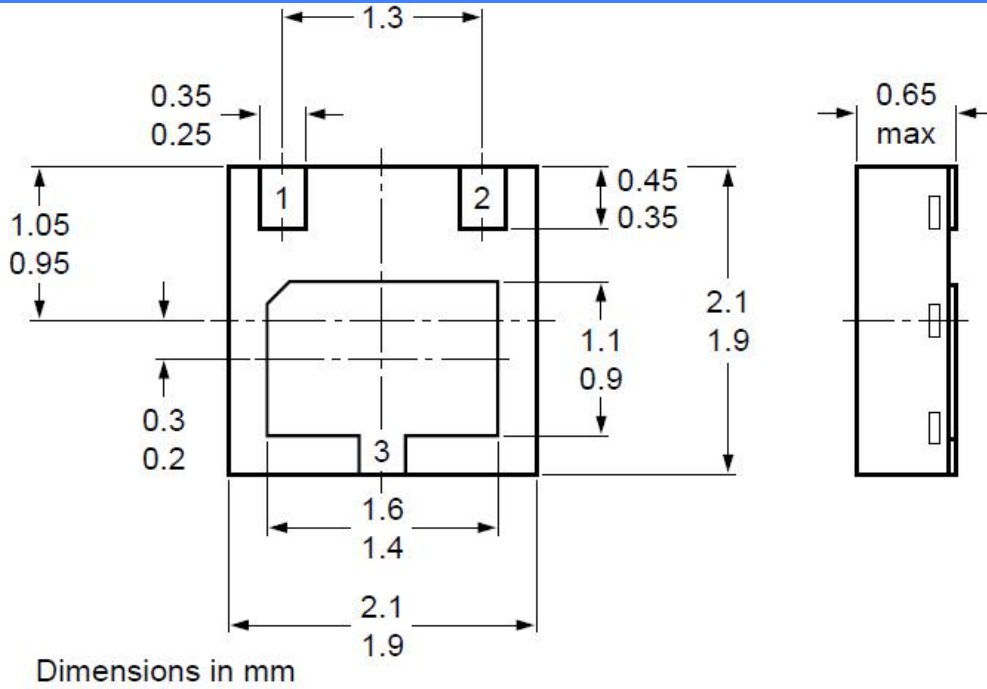
### Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Part Number	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> @20A	V <sub>C</sub>		I <sub>R</sub> $\mu$ A (Max)	C (PF) (TYP)
					MAX	@A		
ESD7V0D2020-3	7	7.5	1	10	22	180	1	1500

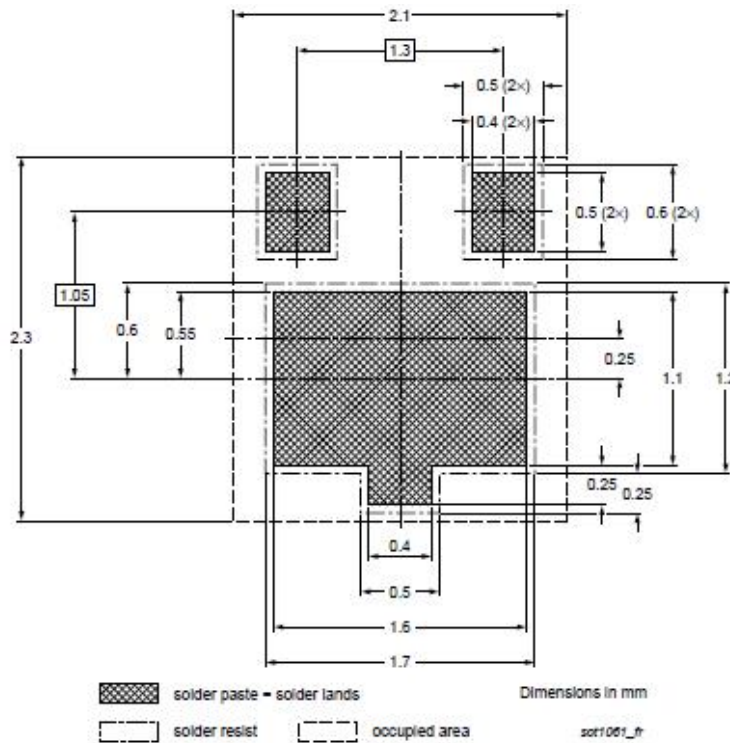
**Characteristics Curves (TA=25°C unless otherwise Specified)**



**PACKAGE OUTLINE DIMENSIONS :DFN2020-3**



**Suggested Land Pattern**



**Disclaimer**

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.