

1-Line High Power Tvs Diode

Features

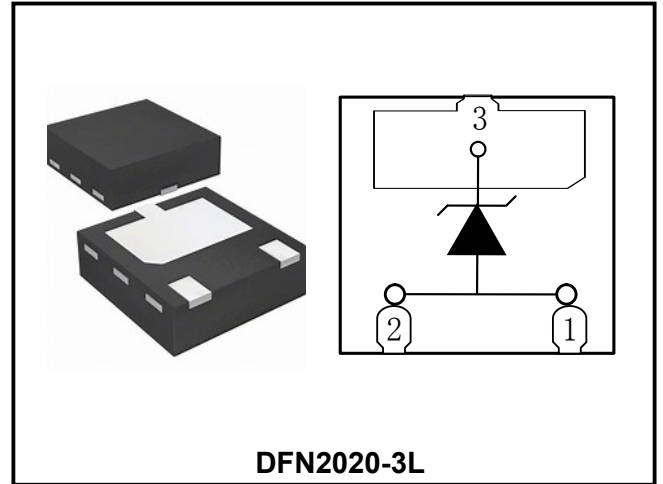
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 12V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ±30kV
Contact discharge: ±30kV
 - IEC61000-4-5 (Lightning) 200A (8/20μs)
- ◆ RoHS Compliant

Mechanical Characteristics

- ◆ Package: DFN2020-3L
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: “Green” Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020

Applications

- ◆ Power Management
- ◆ Industrial Application
- ◆ Power Supply Protection



Product Specification Classification

Part Number	Package	Marking	Pack
ESD2020D12V	DFN2020-3L	T12	3000PCS/Tape

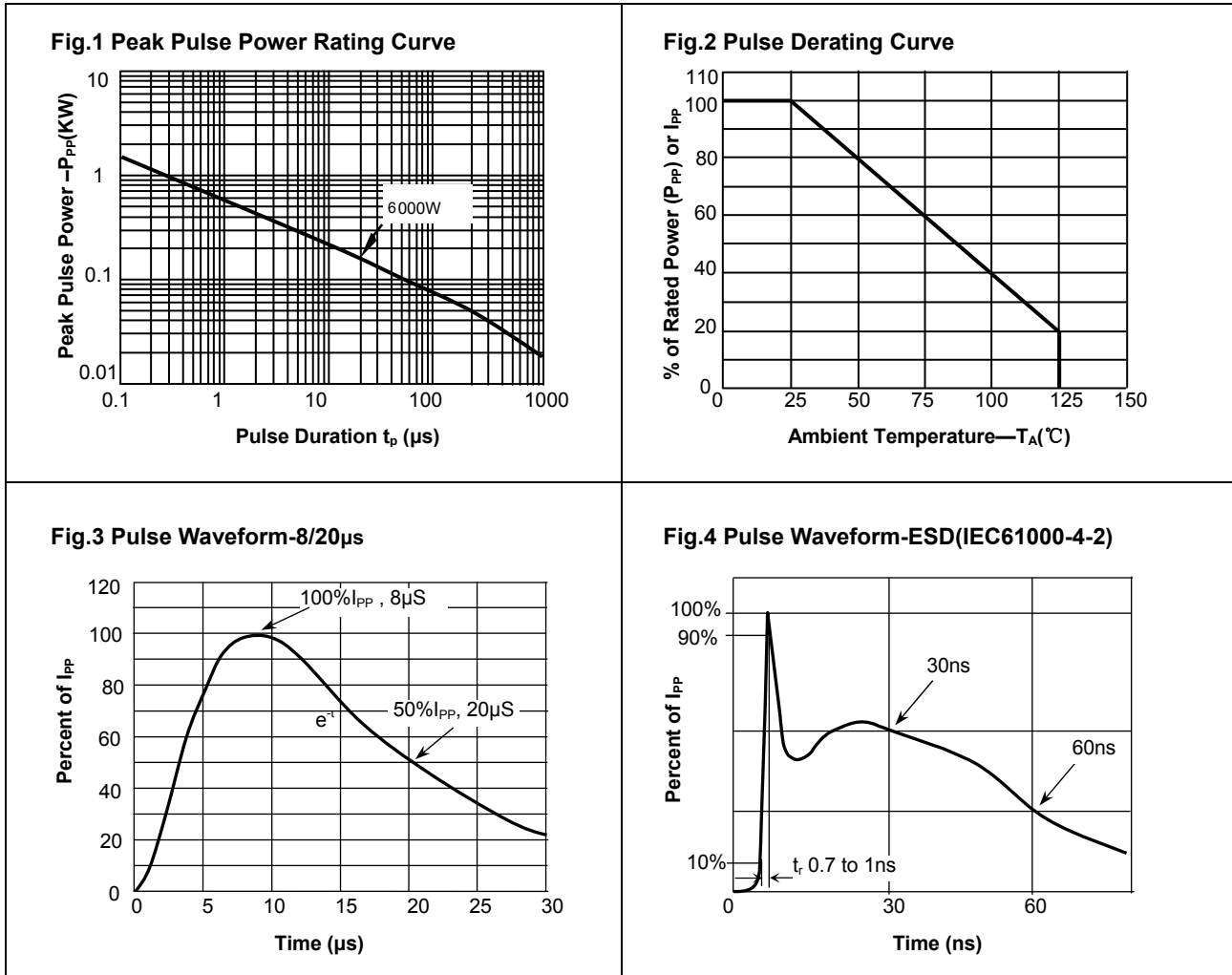
ABSOLUTE MACIMUM RATING

Parameter	Symbol	Rating	Unit
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	V_{ESD}	±30 ±30	Kv
Peak Pulse Power (tp=8/20us waveform)	P_{PP}	6000	W
Peak Pulse Current (8/20us)	I_{PP}	200	A
Operating Temperature Range	T_j	-55 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Electrical Characteristics

Parameter	Test Conditions	Symbol	Criterion			Unit
			Min	Typ	Max	
Reverse stand off voltage		V_{RWM}	-	-	12	V
Breakdown Voltage	I _T = 1mA	V_{BR}	13	-	-	V
Reverse leakage current	V _{RWM} = 12 V	I_R	-	-	1.0	uA
Clamping voltage	I _{PP} =20A(8x20pspulse)	V_C	-	-	15	V
Clamping voltage	I _{PP} =200A(8x20US pulse)	V_C	-	-	30	V
Junction capacitance	V _R = 0V, f = 1 MHz	C_J	-	-	1500	pF

Typical Characteristics
(TA=25°C unless otherwise Specified)

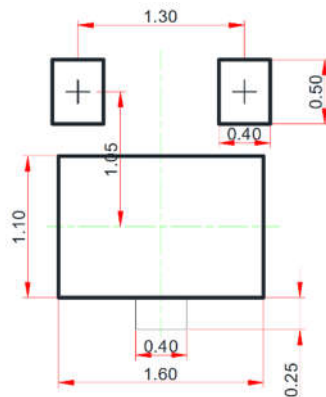


Package Dimensions

DFN2020-3L

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.45	0.65	18	26
A1	0.00	0.05	-	2
A3	0.15 REF			
b	0.25	0.30	10	12
D	1.90	2.00	75	79
E	1.90	2.00	75	79
D2	0.85	1.00	35	040
E2	1.35	1.50	53	59
e	1.20	1.30	47	51
H	0.20	0.25	8	10
K	0.20	0.30	8	12
L	0.35	0.40	14	16
R	0.15	-	6	-

The recommended mounting pad size



Ordering information

Package	Packing Description	Packing Quantity
DFN2020-3L	Tape/Reel,13"reel	3000PCS/Reel 30000PCS/Carton

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