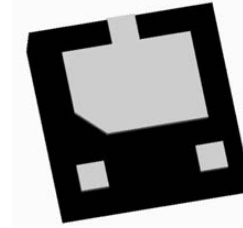




Features

- 5000 W Peak Power ($t_p = 8/20\mu s$)
- Ultra low leakage: nA level
- Low operating voltage
- Low clamping voltage
- 3-pin leadless package
- RoHS compliant



IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-5 (Lightning) 275A (8/20 μs)

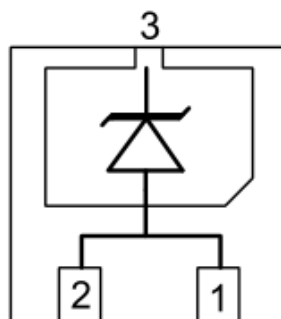
Applications

- Power Management
- Industrial Application
- Power Supply Protection

Mechanical Characteristics

- Package: DFN2020-3
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS/WEEE Compliant
- MSD Level: 2

Schematic and PIN Configuration



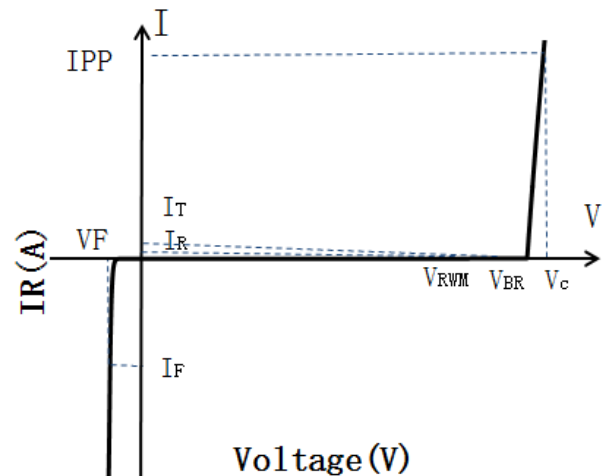


Absolute Maximum Rating(TA=25°C unless otherwise specified)

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	5000	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	275	A
ESD per IEC 61000-4-2(Air)	V_{ESD}	±30	kV
ESD per IEC 61000-4-2(contact)		±30	
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

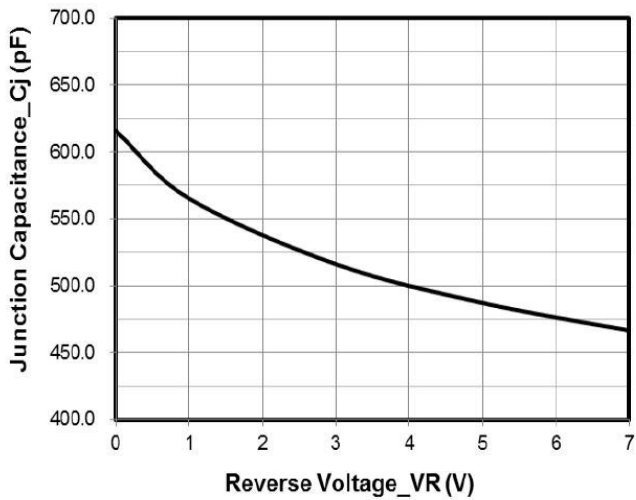
Symbol	Parameter
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_c	Clamping Voltage @ I_c



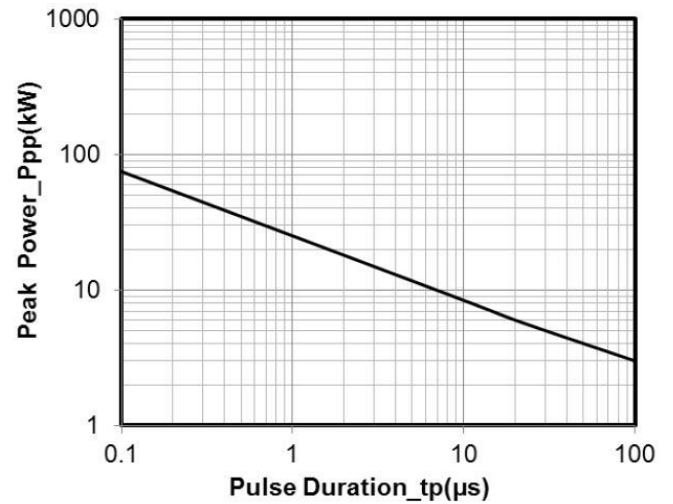
Electrical Characteristics(TA=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				7	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	7.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 7V, T = 25^\circ C$			1.0	μA
Clamping Voltage	V_c	$I_{PP} = 1A, t_p = 8/20\mu s$			10	V
		$I_{PP} = 275A, t_p = 8/20\mu s$			22	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$			1000	pF

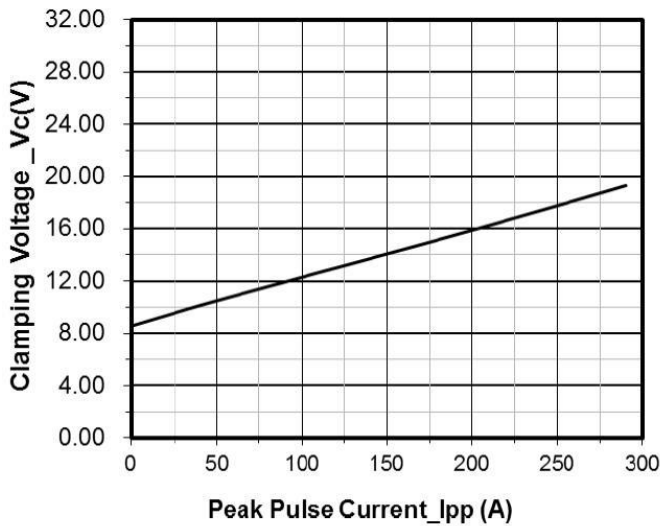
Typical Characteristics (TA=25°C unless otherwise Specified)



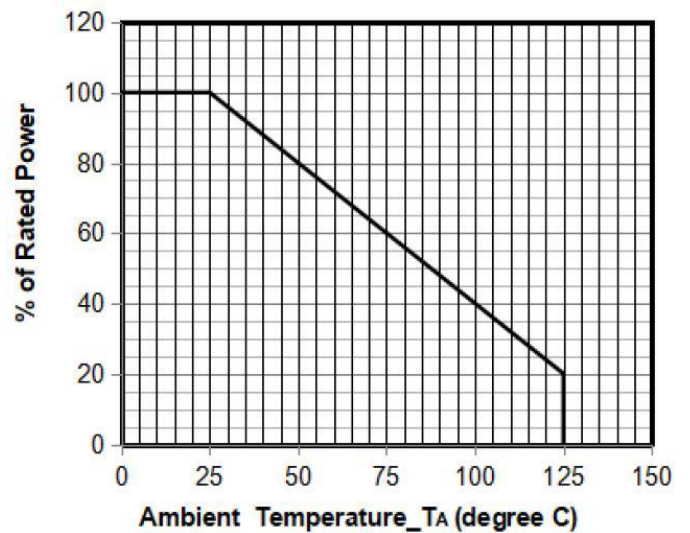
Novction Capacitance vs. Reverse Voltage



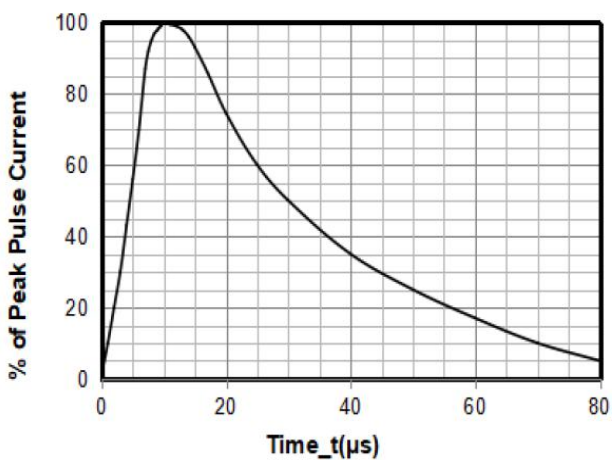
Peak Pulse Power vs. Pulse Time



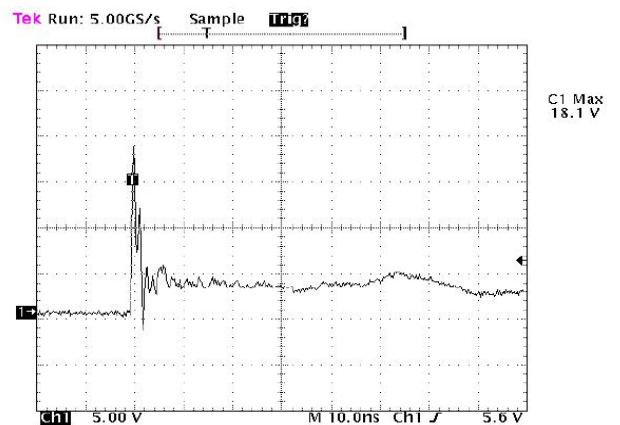
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20μs Pulse Waveform



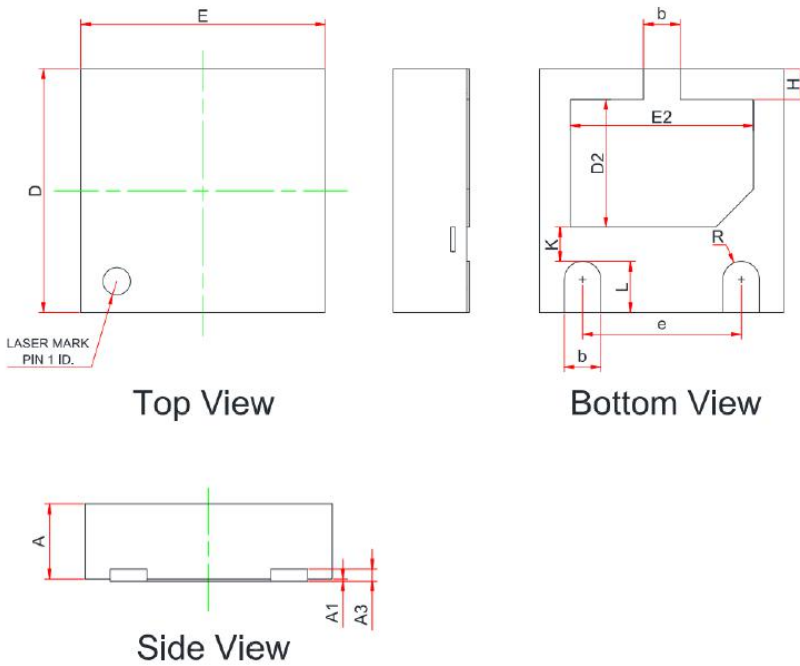
Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

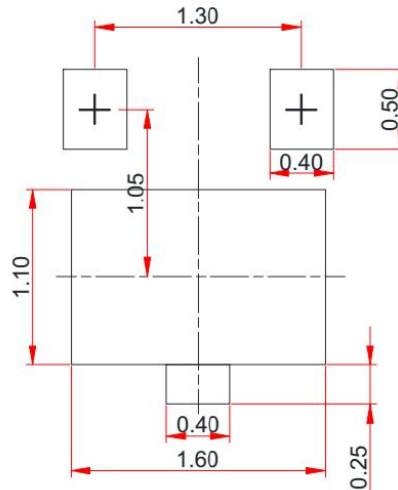


DFN2020-3 Package Outline Drawing



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.55	0.60	0.65
A1	0.00	0.02	0.05
A3	0.10REF		
b	0.25	--	0.35
D	1.90	--	2.10
E	1.90	--	2.10
D2	0.95	--	1.15
E2	1.40	--	1.60
e	1.20		1.40
H	0.20	--	0.30
K	0.20		0.40
L	0.35	--	0.45
R	0.13	--	--

Suggested Land Pattern



Order Information

Order code	Package	Packaging	Reel Size
MDFN2020A071SS	DFN2020-3	3000/Tape & Reel	7 inch