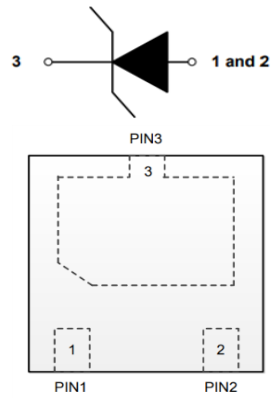
Features

- Low Clamping Voltage
- DFN2020- 3L package
- Protect one I/O or power line
- Stand−off Voltage: 24V
- Response Time is Typically < 1 ns
- Transient protection for data lines to
  IEC 61000-4-2(ESD) ±30KV(air), ±30KV(contact)
  IEC 61000-4-4 (EFT) 80A (5/50ns)
  IEC 61000-4-5 (Lightning) 150A (8/20us)



DFN2020-3L

Applications

- Power supply protection
- Power management
- Cell phone handsets and accessories
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Cellular handsets & accessories
- Computer and peripherals

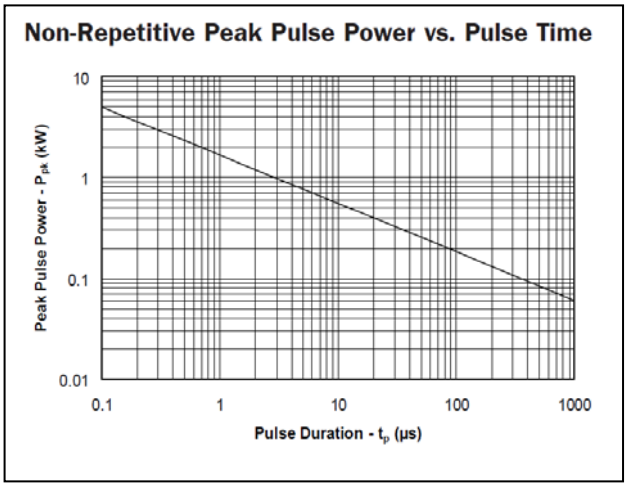
Maximum Rating @ Ta=25℃ unless otherwise specified

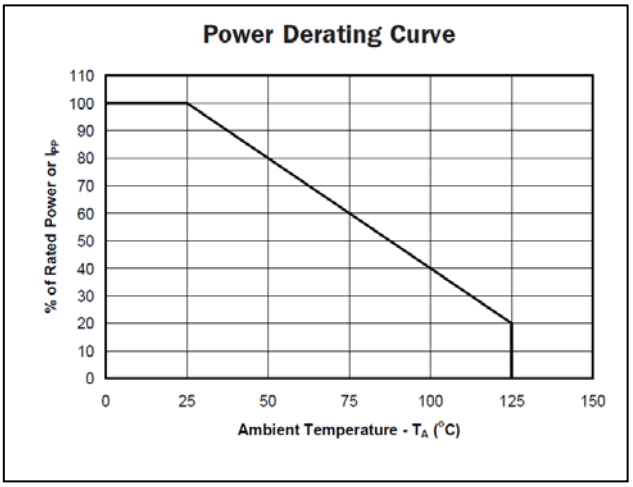
Symbol	Parameter		Ratings	Units
ESD	IEC 61000-4-2 (HBM-ESD)	Contact	30	KV
		Air	30	
T_L	Lead Soldering Temperature		260(10sec.)	℃
T_J	Operating Temperature		-55 to +125	℃
T_{STG}	Storage Temperature		-55 to +150	℃

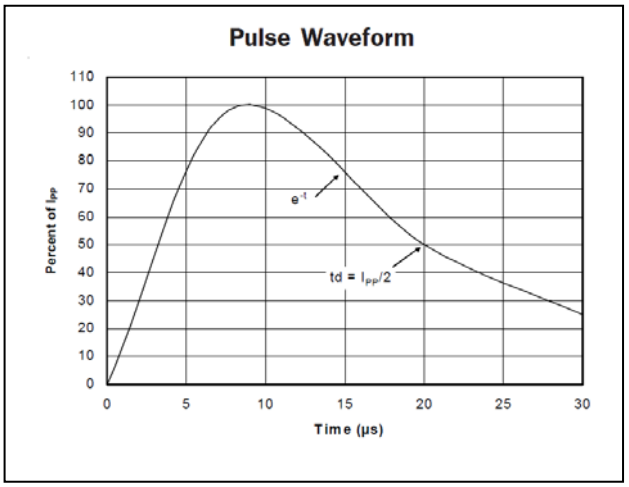
Electrical Characteristics@ Ta=25℃ unless otherwise

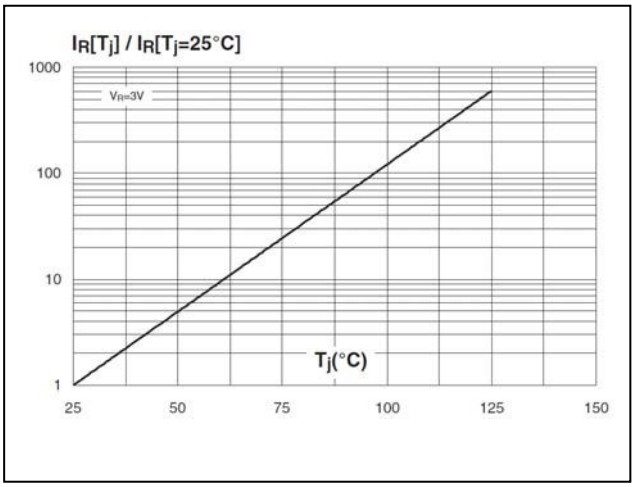
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Units
V_{RWM}	Reverse Working Voltage				24	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA,	25.8	27.0	29.8	V
I_R	Reverse Leakage Current	V_{RWM} = 24V			1	μA
V_C	Clamping Voltage	I_{PP} = 40A, tp =8/20μs			41.2	V
		I_{PP} = 120A, tp =8/20μs		46.2	58.6	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz			850	pF

Typical Characteristics@ Ta=25℃ unless otherwise specified



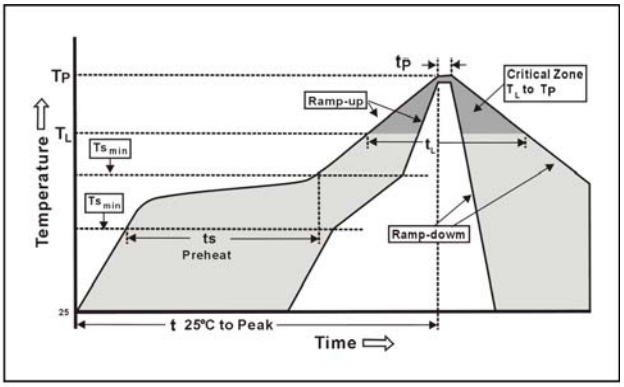






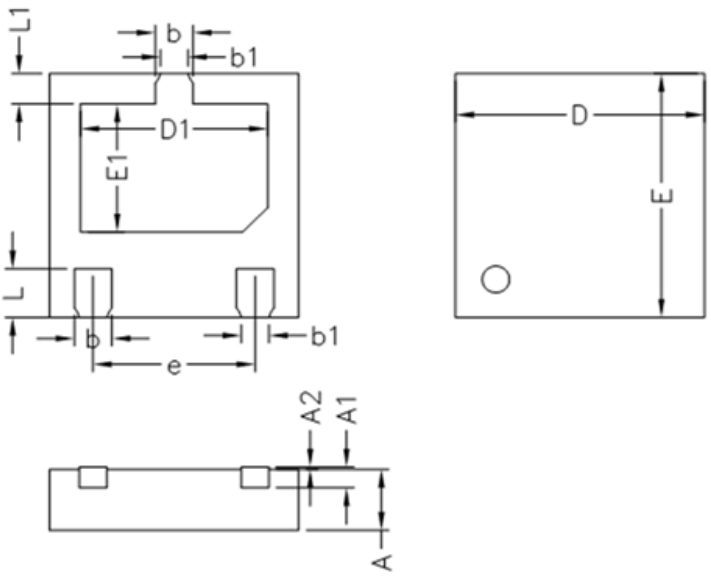
Soldering Parameters

Reflow Condition		Fb – Free assembly
Pre Heat	-Temperature Min ($T_{s(Min)}$)	150°C
	-Temperature Max ($T_{s(Max)}$)	200°C
	-Time (Min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus) Temp (T_L) to peak		3°C/second Max
$T_{S(Max)}$ to T_L - Ramp-up Rate		3°C/second Max
Reflow	-Temperature (T_L) (Liquidus)	217°C
	-Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)		$250^{+0/-5}$ °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-dowm Rate		6°C/second Max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



Package Outline

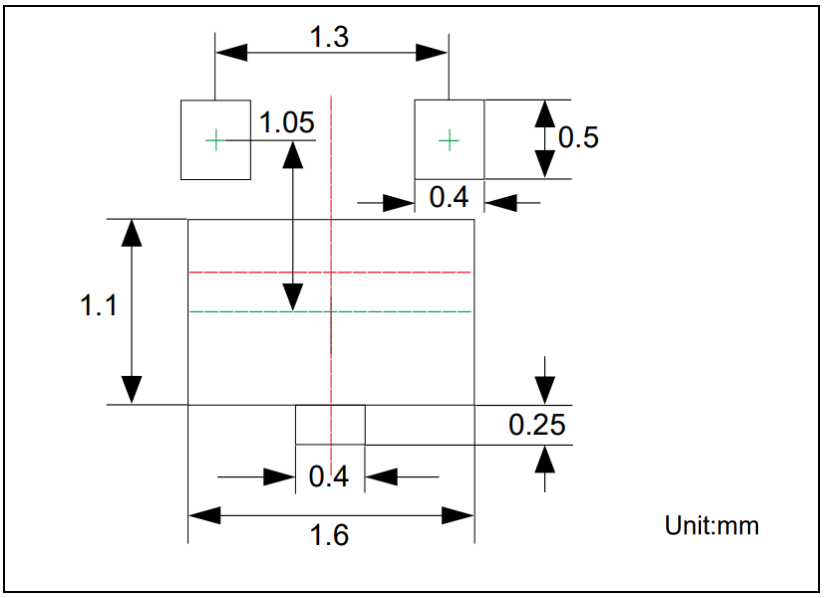
Plastic surface mounted package DFN 2020-3L



Units: mm

	Min	Nom	Max
D	1.95	2.00	2.05
E	1.95	2.00	2.05
D1	1.45	1.50	1.55
E1	1.00	1.05	1.10
L1	0.20	0.25	0.30
L	0.35	0.40	0.45
b1	0.22REF		
b	0.25	0.30	0.35
e	1.30BSC		
A1	0.15REF		
A2	0.00	0.02	0.05
A	0.45	0.50	0.55

Soldering Footprint



Package Information

Device	Package	Shipping	Reel Size
ESD3N24V	DFN2020-3L	3K/Reel	7 inch