

FEATURES

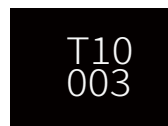
- | 4000Watts peak pulse power ($t_p = 8/20\mu s$)
- | Response time is typically $< 1\text{ ns}$
- | Protect one I/O or power line
- | Low clamping voltage

APPLICATIONS

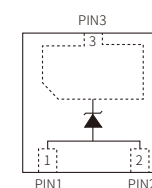
- | Cell phone handsets and accessories
- | Personal digital assistants (PDA' s)
- | Notebooks, desktops, and servers
- | Portable instrumentation
- | Cordless phones
- | Digital cameras
- | Peripherals
- | MP3 players



DFN2020-3L



Marking



Schematic Symbol

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) $\pm 30\text{ kV}$ (air), $\pm 30\text{ kV}$ (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

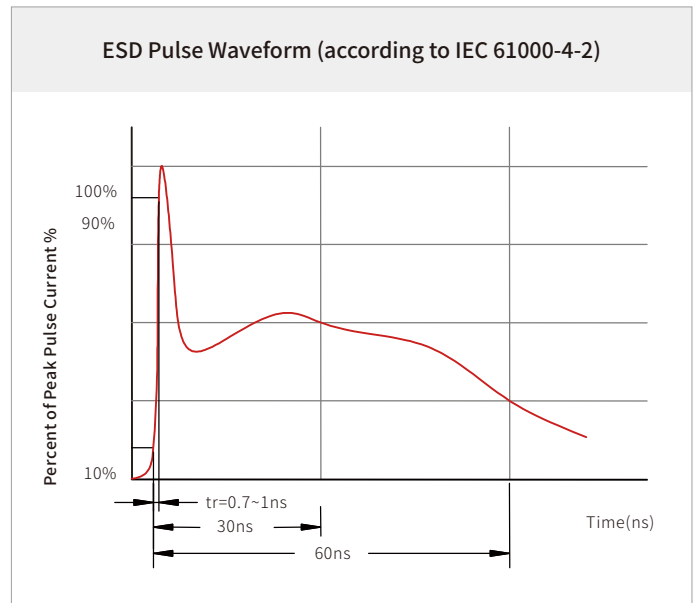
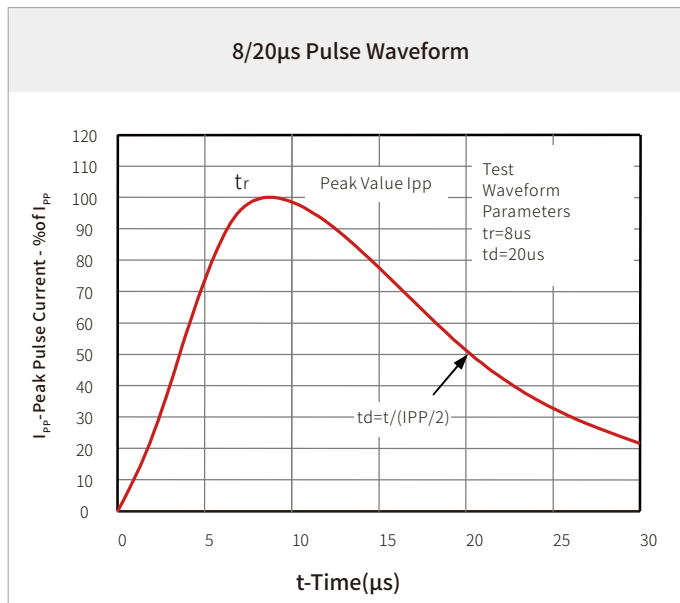
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P_{pp}	Peak Pulse Power ($t_p=8/20\mu s$ waveform)	4000	Watts
T_J	Operating Temperature Range	-55 to +125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

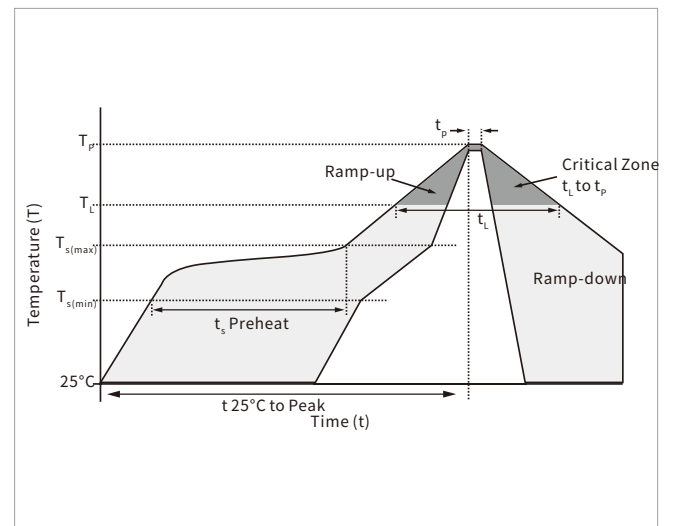
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				10	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1\text{ mA}$	13	14.2	16	V
I_R	Reverse Leakage Current	$V_{RWM}=10\text{ V}$			1	μA
V_C	Clamping Voltage	$I_{pp}=50\text{ A}, t_p=8/20\mu s$			22	V
V_C	Clamping Voltage	$I_{pp}=100\text{ A}, t_p=8/20\mu s$			25	V
V_C	Clamping Voltage	$I_{pp}=180\text{ A}, t_p=8/20\mu s$			32	V
I_{pp}	Peak Pulse Current	$t_p=8/20\mu s$			180	A
C_J	Off State Junction Capacitance	$V_R=0\text{ V}, f=1\text{ MHz}$			1400	pF

CHARACTERISTIC CURVES

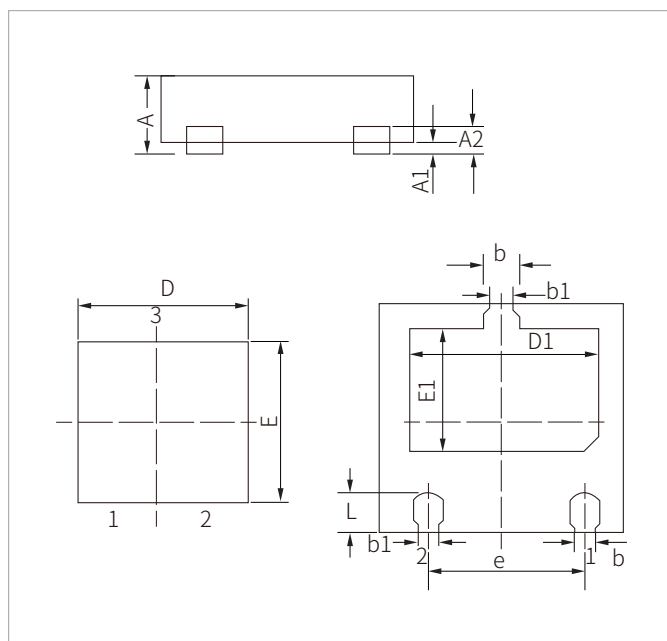


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	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
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

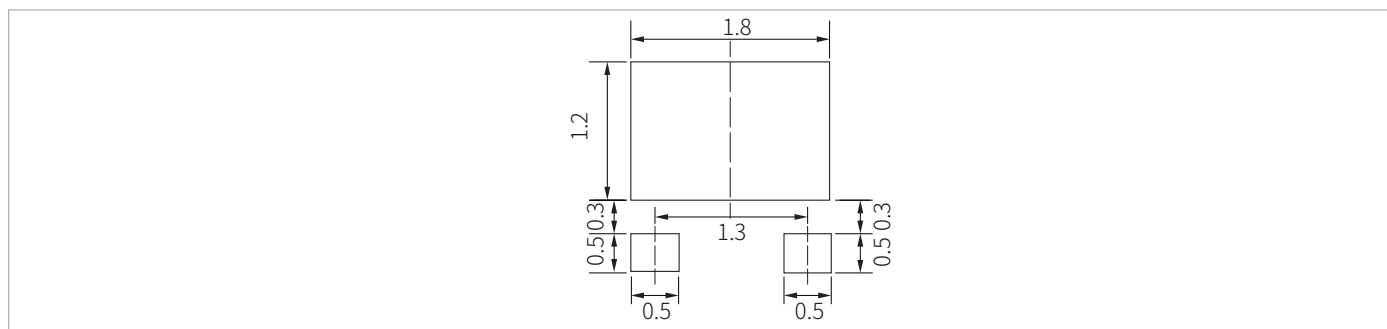


DFN2020-3L PACKAGE INFORMATION



Ref.	Millimeters		
	Min.	Typ.	Max.
A	0.45	0.55	0.65
A1	-	0.00	0.05
A2	0.152BSC		
D	1.80	2.00	2.20
E	1.80	2.00	2.20
b	0.15	0.20	0.25
b1	0.25	0.30	0.35
D1	1.45	1.50	1.55
E1	1.00	1.05	1.10
e	1.30BSC		
L	0.35	0.40	0.45

RECOMMENDED PAD LAYOUT DIMENSIONS



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE22F400U10A	DFN2020-3L	3000PCS	7"

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By QR Code

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