

Description

The SXTVSHC3N7VU protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. They feature large cross-sectional area junctions for conducting high transient currents, offer desirable electrical characteristics for board level protection, such as fast response time, low operating voltage.

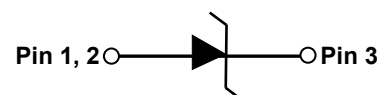
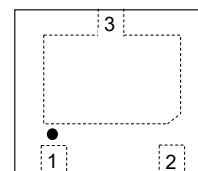
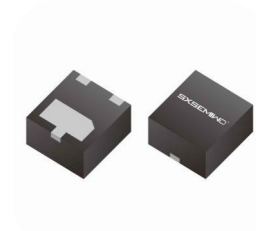
Feature

4300W Peak pulse power per line ($t_P = 8/20\mu s$)
 DFN2×2-3L package
 Response time is typically < 1 ns
 Protect one I/O or power line
 Low clamping Voltage
 RoHS compliant
 Transient protection for data lines to IEC 61000-4-2(ESD)
 $\pm 30KV$ (air), $\pm 30KV$ (contact); IEC 61000-4-4 (EFT) 80A (5/50ns)
 IEC 61000-4-5 (Lightning) 260A (8/20us)

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

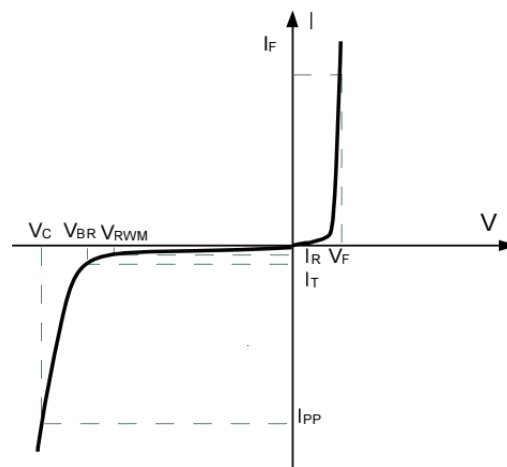


Mechanical Characteristics

Lead finish: 100% matte Sn(Tin)
 Mounting position: Any
 Qualified max reflow temperature: 260°C
 Pure tin plating: 7 ~ 17 μm
 Pin flatness: ≤ 3mil

Electronics Parameter

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical characteristics per line@25°C (unless otherwise specified)

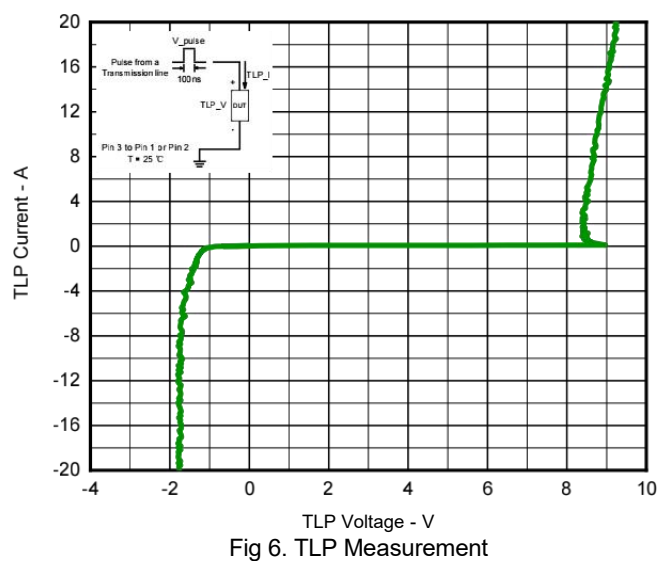
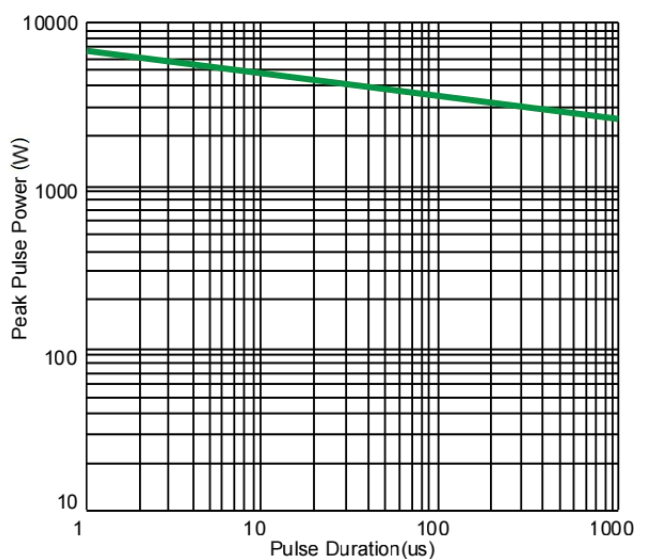
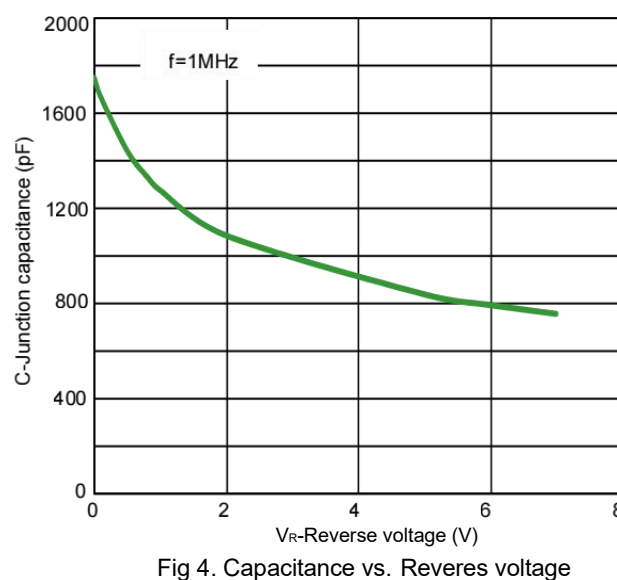
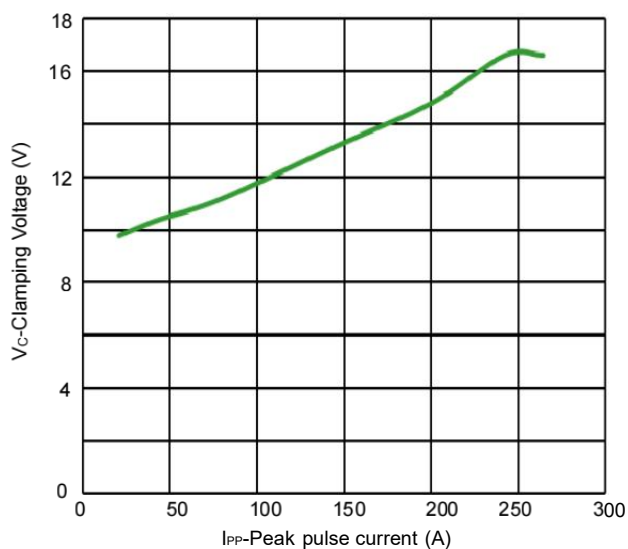
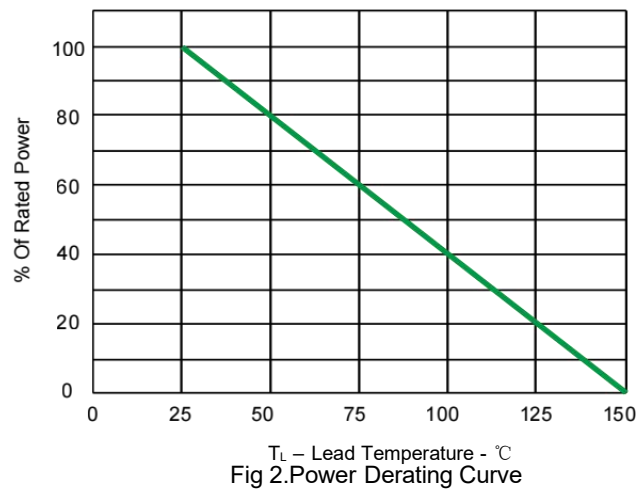
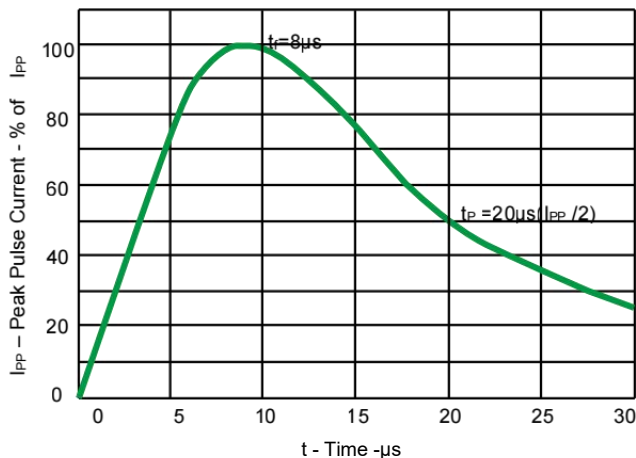
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				7	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	8	9	10	V
Reverse Leakage Current	I_R	$V_{RWM} = 7\text{V}$			1	μA
Maximum Reverse Peak Pulse Current	I_{PP}			260		A
Clamping Voltage	V_C	$I_{PP}=20\text{A}$ $t_P = 8/20\mu\text{s}$		9.5	11	V
Clamping Voltage	V_C	$I_{PP}=80\text{A}$ $t_P = 8/20\mu\text{s}$		11	13	V
Clamping Voltage	V_C	$I_{PP}=200\text{A}$ $t_P = 8/20\mu\text{s}$		15	19	V
Junction Capacitance	C_J	$V_R=0\text{V}$ $f = 1\text{MHz}$		1700	1900	pF

Notes : Measured from pin 3 to pin 1 and pin 2.

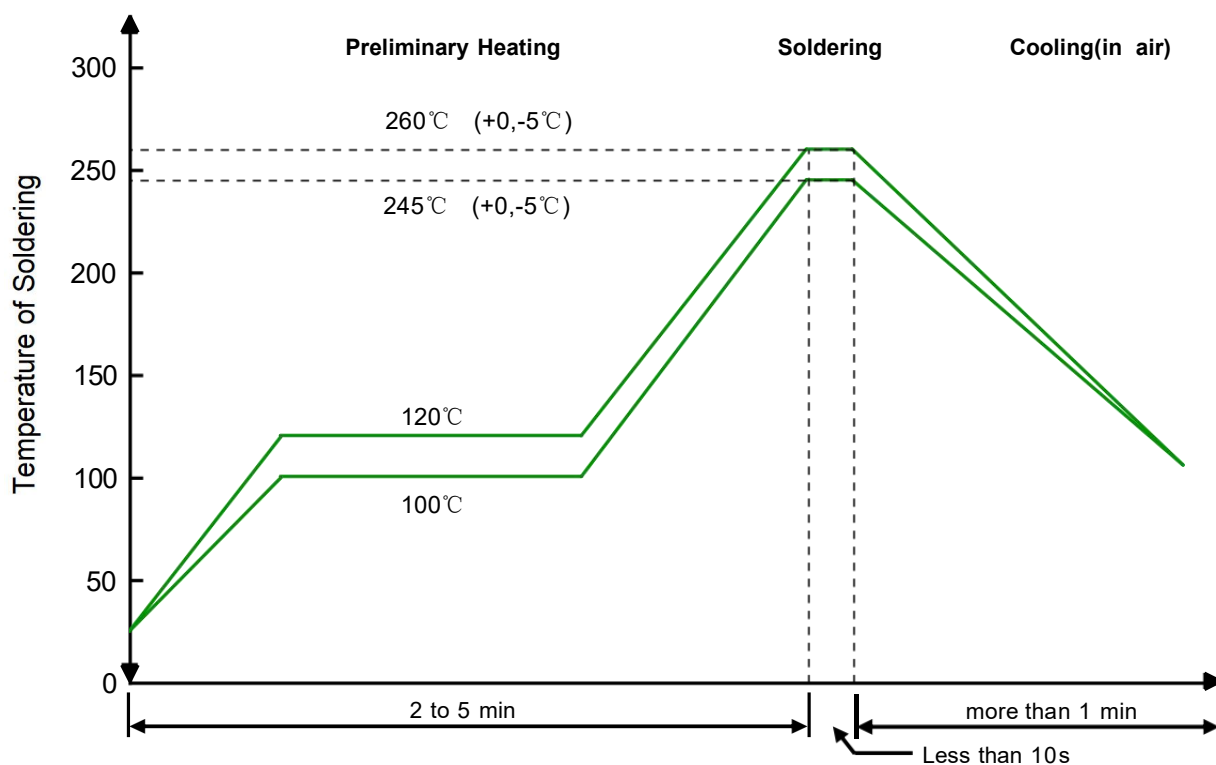
Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_P = 8/20\mu\text{s}$)	P_{PP}	4300	W
Lead Soldering Temperature	T_L	260 (10 sec)	°C
Operating Temperature	T_J	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

Typical Characteristics



Solder Reflow Recommendation

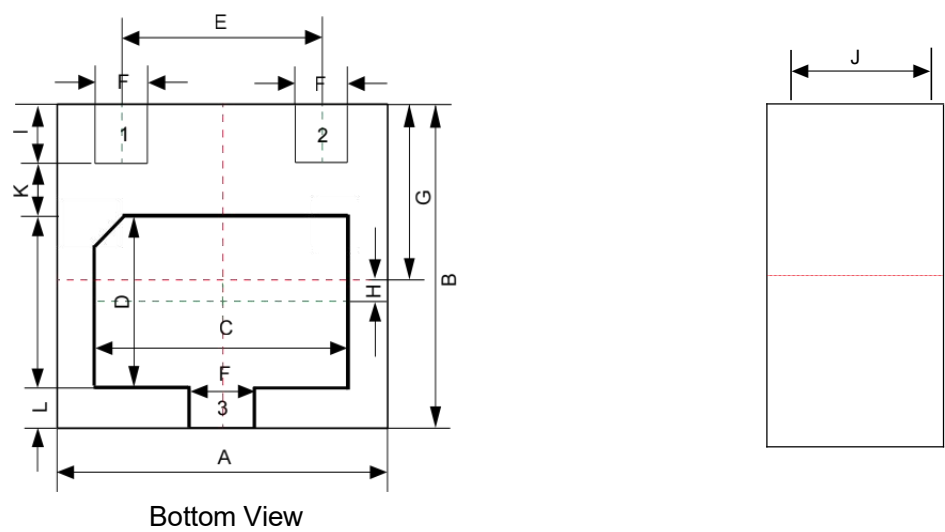


Remark: Pb free for 260°C ; Pb for 245°C .

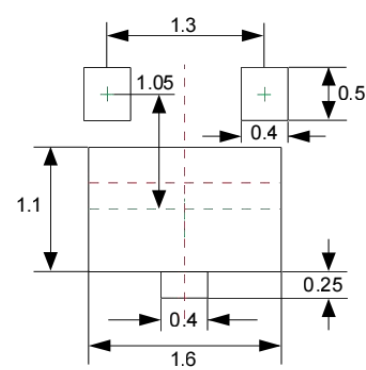
Ordering information

Device	Package	Reel	Shipping
TAPING	DFN2×2-3L (Pb-Free)	7"	3000 / Tape & Reel

Product dimension (DFN2×2-3L)



Dim	Millimeters	
	MIN	MAX
A	1.90	2.10
B	1.90	2.10
C	1.40	1.60
D	0.90	1.15
E	1.30BSC	
F	0.25	0.40
G	0.90	1.10
H	0.20	0.30
I	0.32	0.48
J	0.50	0.65
K	0.20	0.45
L	0.15	0.30



Recommended Soldering Pad

Unit:mm