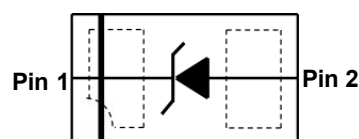


Description

The SXTVSHC2EN5VU 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.

DFN1610-2L



Feature

1600W Peak pulse power per line ($t_p = 8/20\mu s$)

DFN1610-2L package

Response time is typically $< 1 \text{ ns}$

Protect one I/O or power line

Low clamping Voltage

RoHS compliant

Transient protection for data lines to IEC 61000-4-2(ESD)

$\pm 30 \text{KV}$ (air), $\pm 30 \text{KV}$ (contact); IEC 61000-4-4 (EFT) 80A (5/50ns)

IEC 61000-4-5 (Lightning) 130A (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

Mechanical Characteristics

Lead finish: 100% matte Sn(Tin)

Mounting position: Any

Qualified max reflow temperature: 260°C

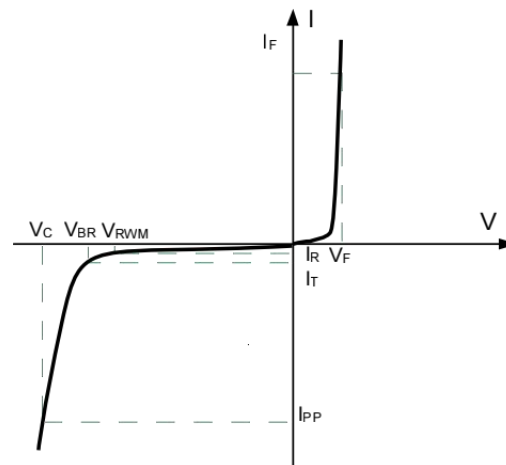
Pure tin plating: $7 \sim 17 \mu m$

Pin flatness: $\leq 3 \text{ mil}$

Device meets MSL 3 requirements

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



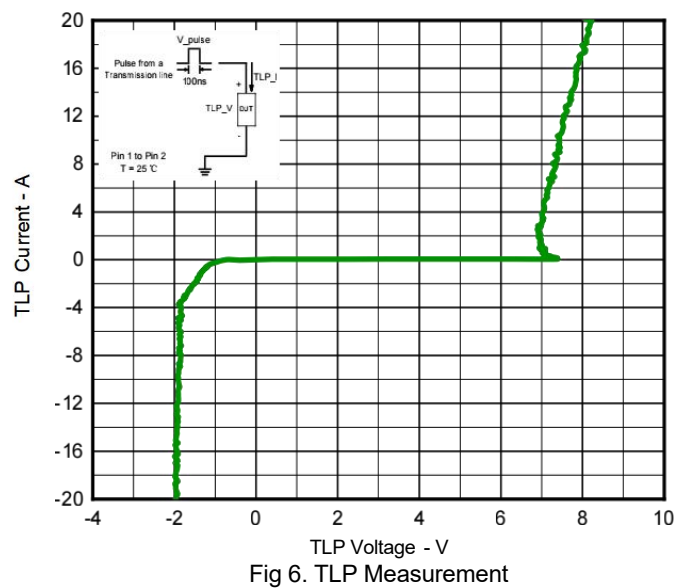
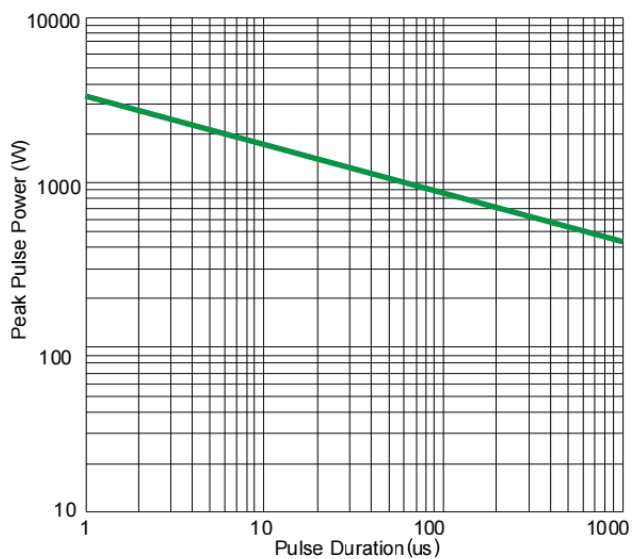
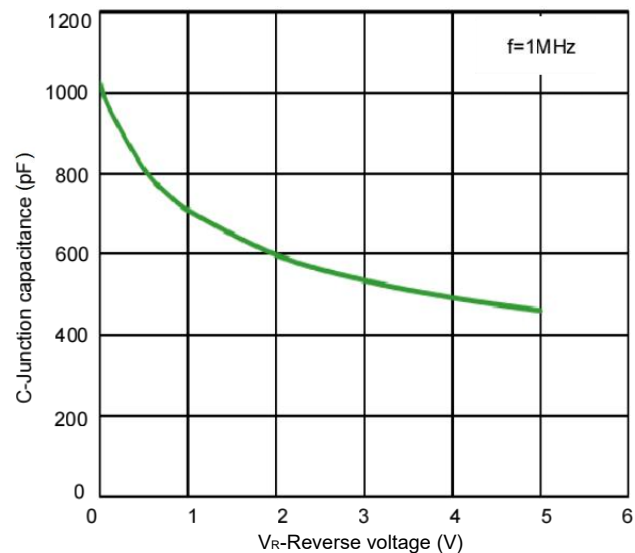
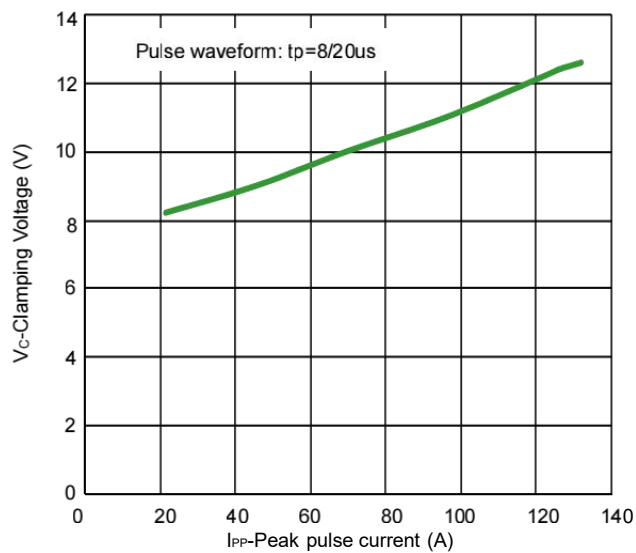
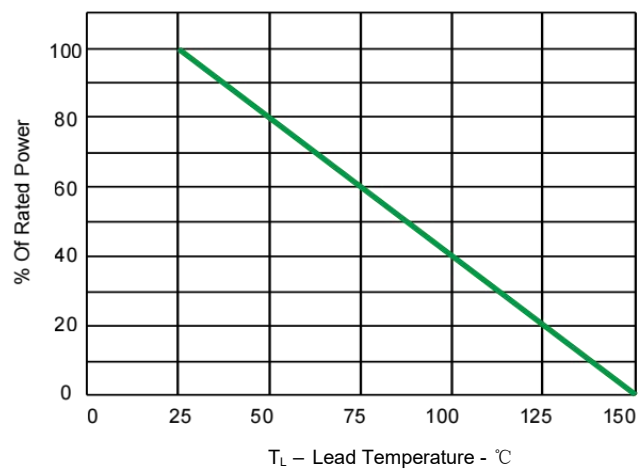
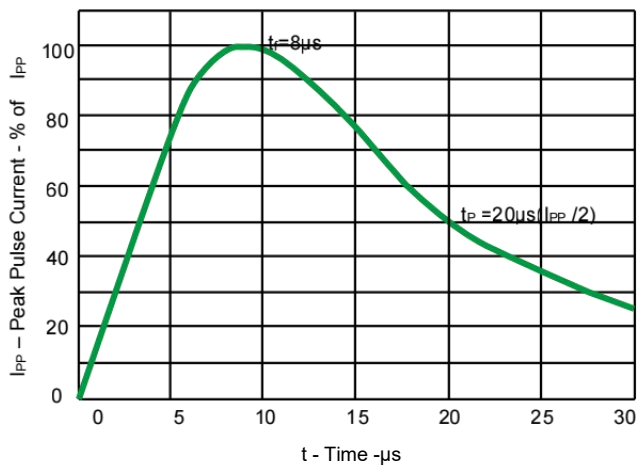
Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6	7	8	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			2	μA
Clamping Voltage	V_C	$I_{PP} = 20\text{A}$ $t_P = 8/20\mu\text{s}$		8	9	V
Clamping Voltage	V_C	$I_{PP} = 70\text{A}$ $t_P = 8/20\mu\text{s}$		10	11	V
Clamping Voltage	V_C	$I_{PP} = 130\text{A}$ $t_P = 8/20\mu\text{s}$		12.5	14	V
Junction Capacitance	C_J	$V_R = 0\text{V}$ $f = 1\text{MHz}$	800	1000	1200	pF

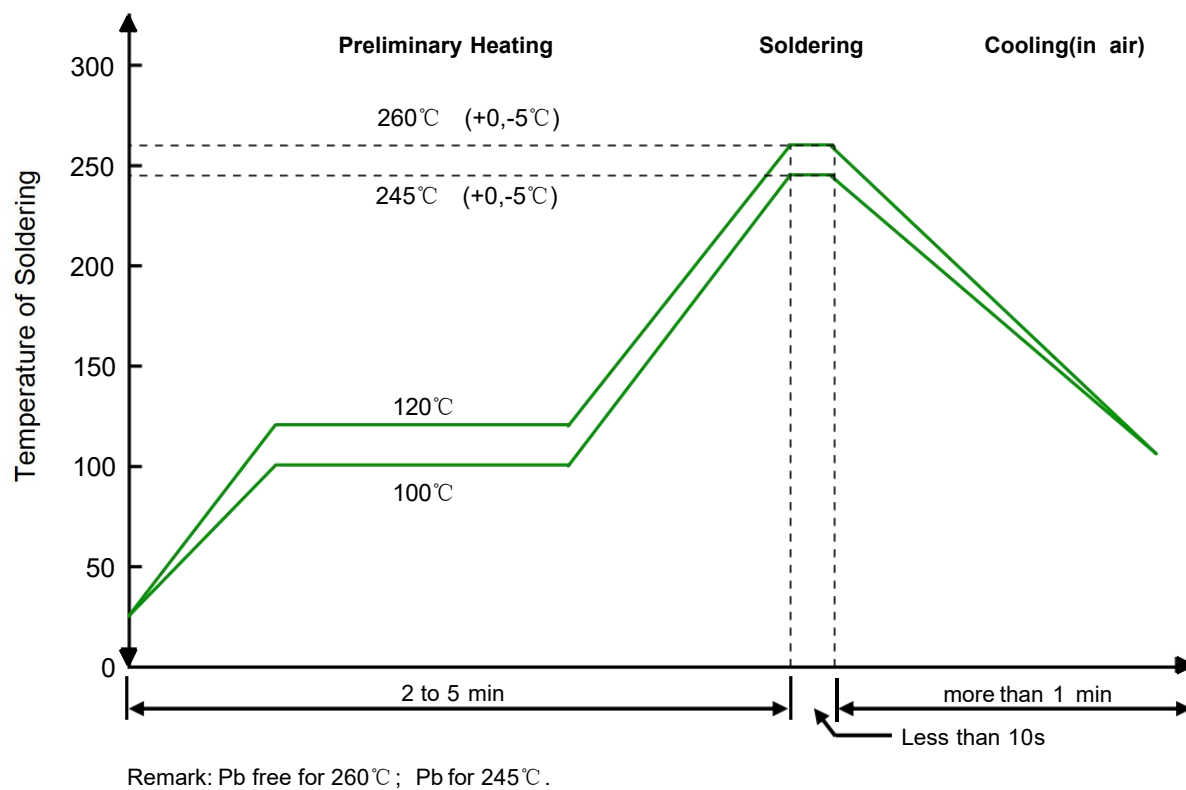
Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_P = 8/20\mu\text{s}$)	P_{pp}	1600	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



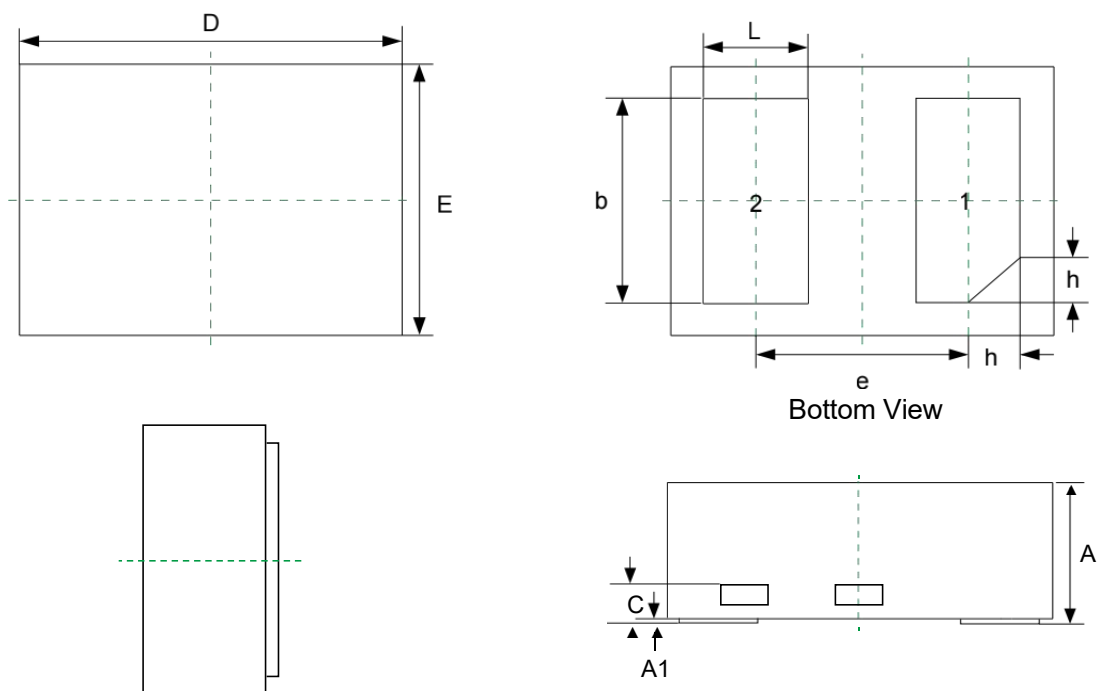
Solder Reflow Recommendation



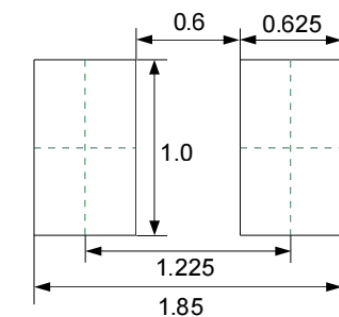
Ordering information

Device	Package	Reel	Shipping
TAPING	DFN1610-2L (Pb-Free)	7"	3000 / Tape & Reel

Product dimension (DFN1610-2L)



Dim	Millimeters	
	MIN	MAX
A	0.40	0.60
A1	--	0.05
b	0.75	0.85
c	0.10	0.20
D	1.55	1.65
e	1.10BSC	
E	0.95	1.05
L	0.35	0.45
h	0.15	0.25



Recommended Soldering Pad

Unit:mm