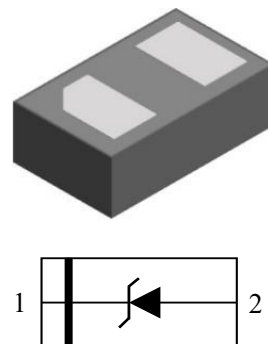


Description

The SXTVSHC2EN12VU 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. It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.

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) $\pm 30\text{KV}(\text{air})$, $\pm 30\text{KV}(\text{contact})$;
IEC 61000-4-4 (EFT) 40A (5/50ns)

Applications

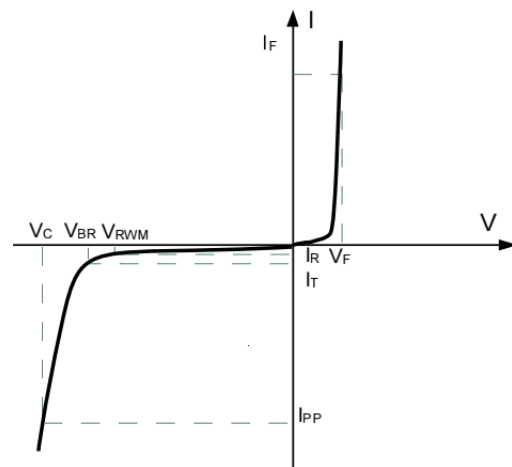
Cell phone handsets and accessories
Personal digital assistants (PDA's)
Notebooks, desktops, and servers
Portable instrumentation
Cordless phones
Digital cameras
Peripherals
MP3 players

Mechanical Characteristics

Lead finish: 100% matte Sn(Tin)
Mounting position: Any
Qualified max reflow temperature: 260°C
Pure tin plating: $7 \sim 17\text{ }\mu\text{m}$
Pin flatness: $\leq 3\text{mil}$
Device meets MSL3 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



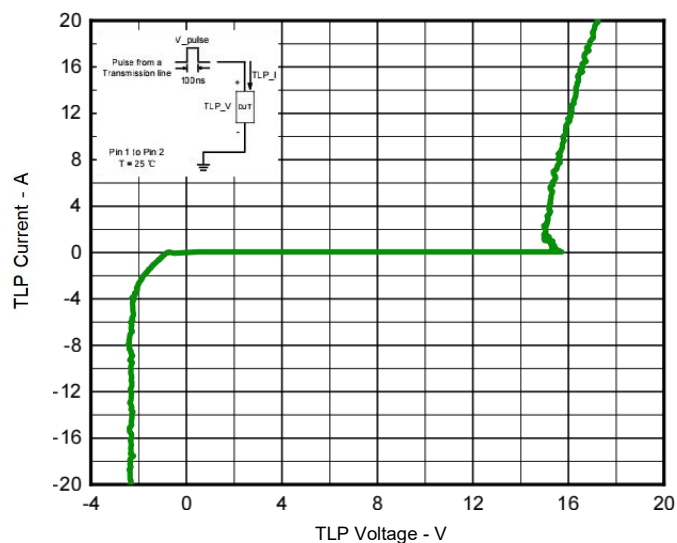
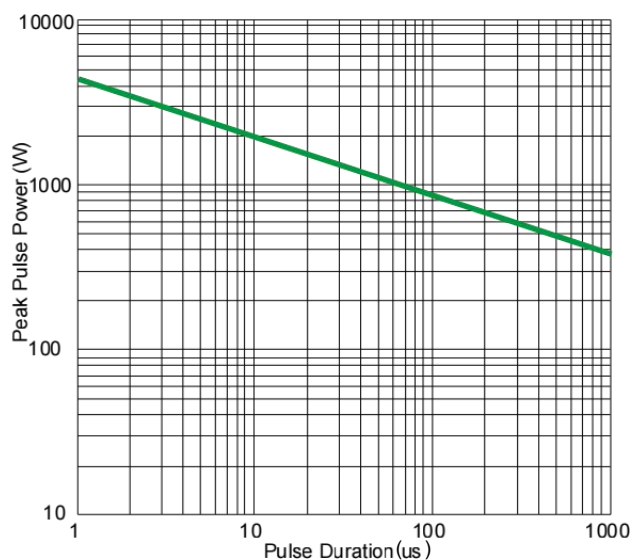
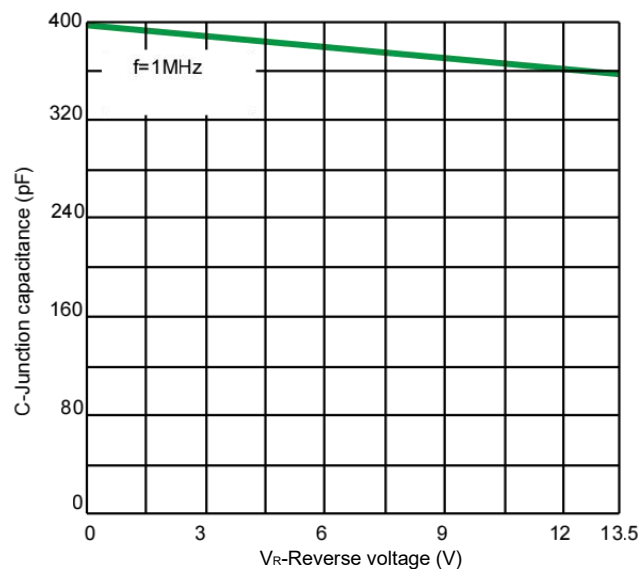
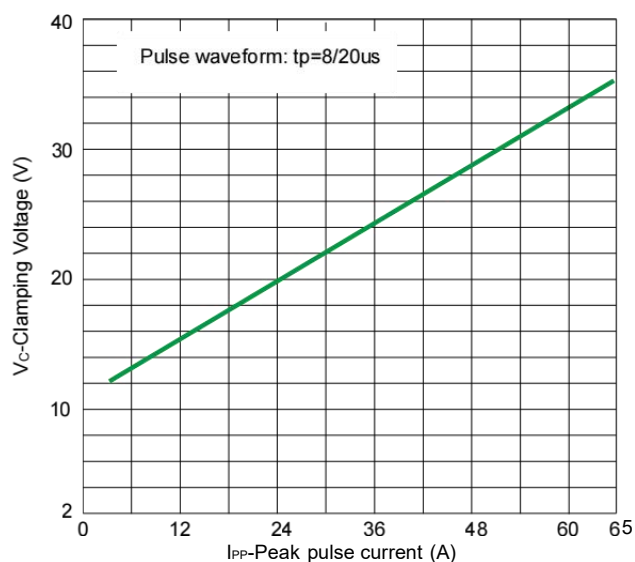
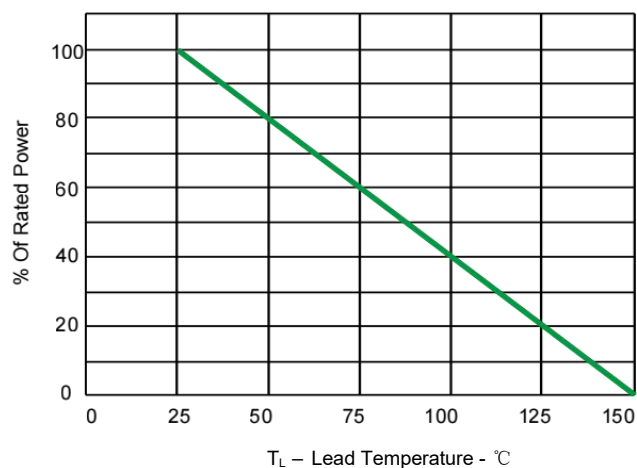
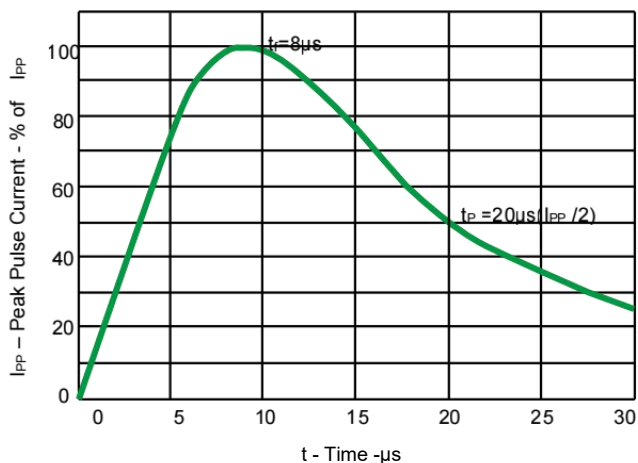
Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				12	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	13.5	15.0		V
Reverse Leakage Current	I_R	$V_{RWM} = 12\text{V}$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 65\text{A}$ $t_P = 8/20\mu\text{s}$		30.0	35.0	V
Junction Capacitance	C_J	$V_R = 0\text{V}$ $f = 1\text{MHz}$	300	355	400	pF

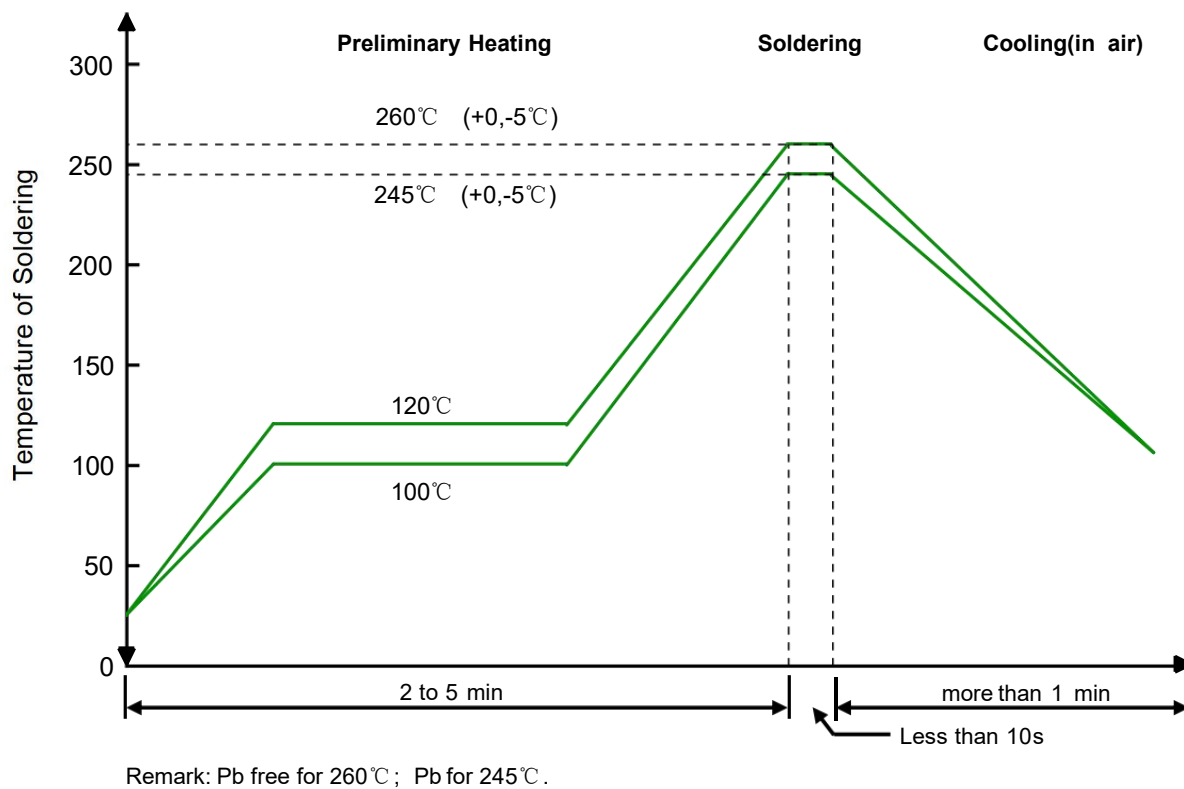
Absolute maximum rating@25°C

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 +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Typical Characteristics



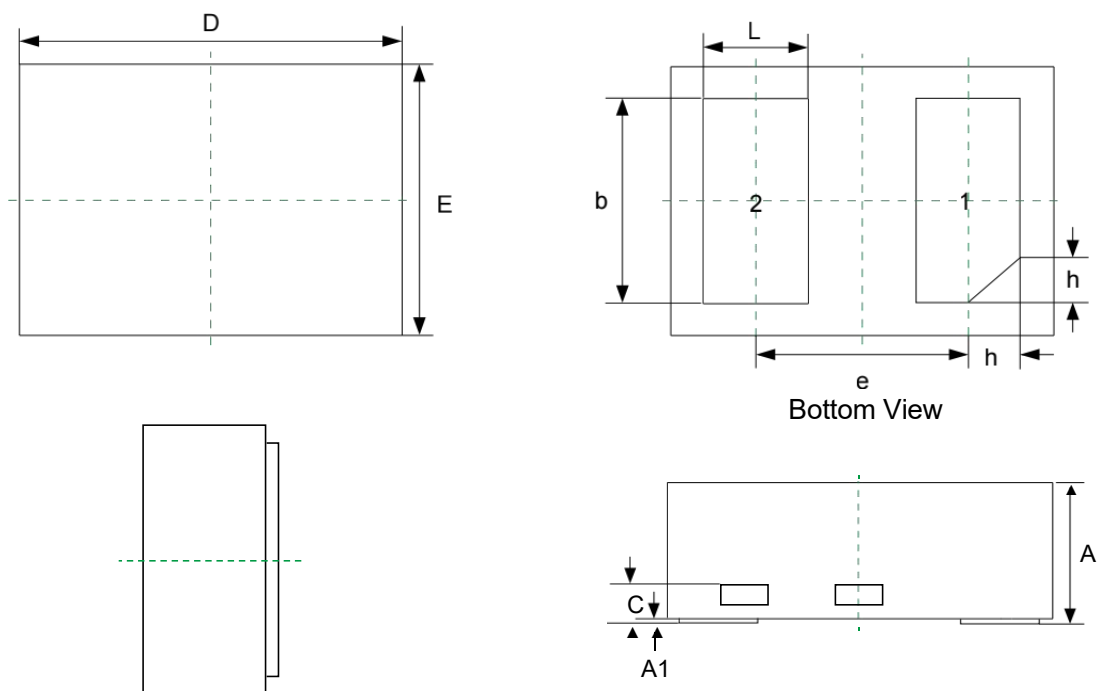
Solder Reflow Recommendation



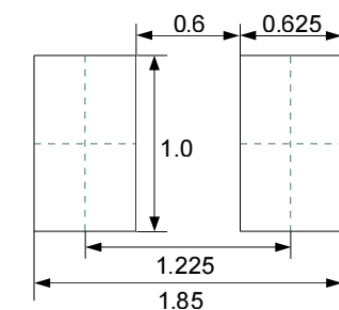
Ordering information

Device	Package	Shipping
TAPING	DFN1610-2L (Pb-Free)	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