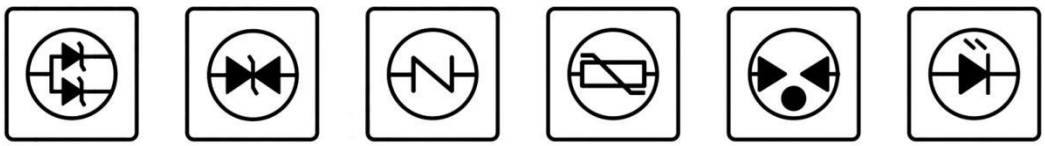
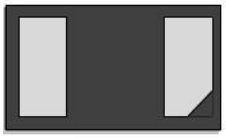
MSKSEMI
SEMICONDUCTOR

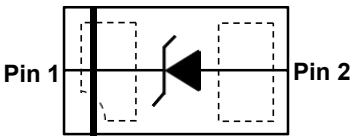


Product data sheet

Feature

- 1600W Peak pulse power per line (t_P = 8/20μs)
- DFN1610-2 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) ±30KV(air), ±30KV(contact); IEC 61000-4-4 (EFT) 80A (5/50ns)
- IEC 61000-4-5 (Lightning) 130A (8/20us)





Circuit Diagram

DFN1610-2

Applications

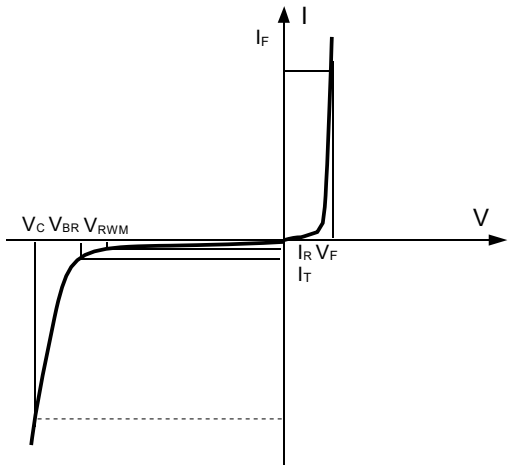
- Cell phone handsets and accessories
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation
- Cordless phones
- Digital cameras
- Peripherals
- MP3 players

Mechanical Characteristics

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



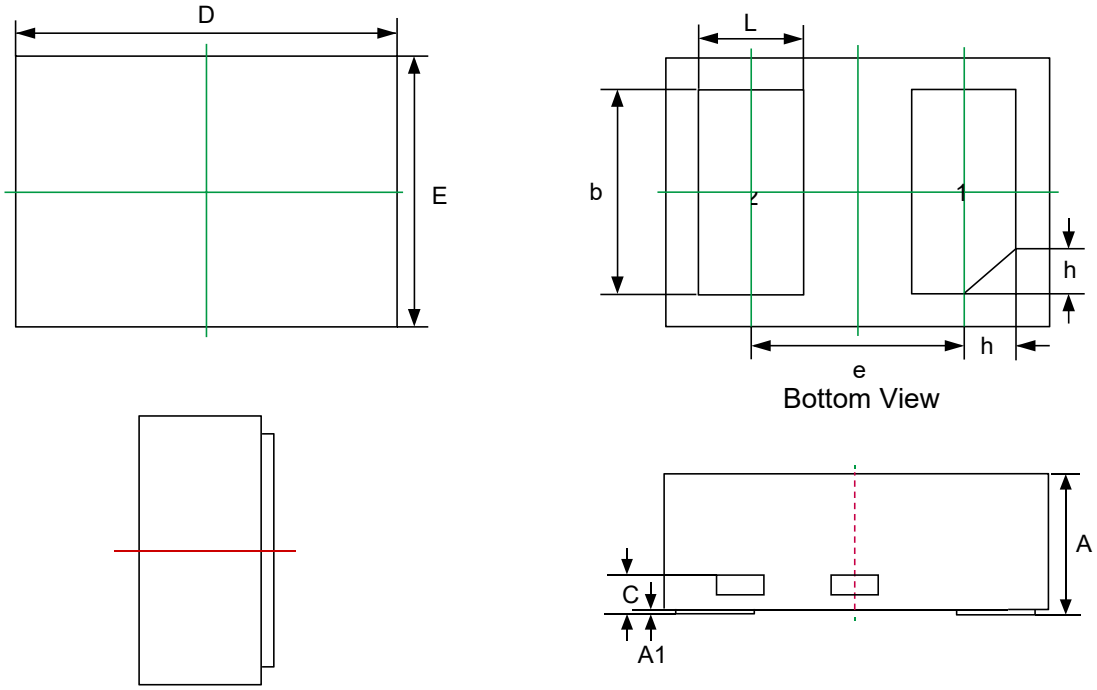
Electrical characteristics per line@25℃(unless otherwise specified)

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

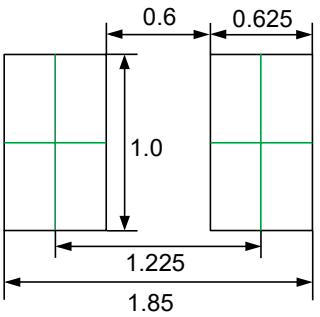
Absolute maximum rating@25℃

Rating	Symbol	Value	Units
Peak Pulse Power (t_P = 8/20μS)	P_{pp}	1600	W
Lead Soldering Temperature	T_L	260 (10 sec)	℃
Operating Temperature	T_J	-55 to +150	℃
Storage Temperature	T_{STG}	-55 to +150	℃

Product dimension (DFN1610-2)



Dim	Millimeters	
	MIN	MAX
A	0.45	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

REEL SPECIFICATION

P/N	PKG	QTY
UCLAMP0571P-MS	DFN1610-2	3000

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