SEULC7534P5

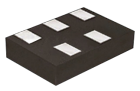
Electrostatic Discharge Protection Device

FEATURES

- 110W Peak Pulse Power per Line (tp=8/20μs)
- Protects Four High Speed I/O Lines
- Low Clamping Voltage

APPLICATIONS

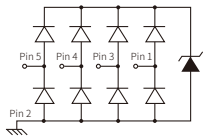
- Digital Visual Interface
- USB Ports
- PCI Express
- Serial ATA
- Firewire Ports
- GaAs Photodetector Protection
- HBT Power Amp Protection
- Infiniband Transceiver Protection



DFN2010-5L

UL1A

Marking



Schematic Symbol

IEC COMPATIBILITY

- IEC61000-4-2 (ESD) ±17kV (air), ±15kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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

THERMAL CONSIDERATIONS

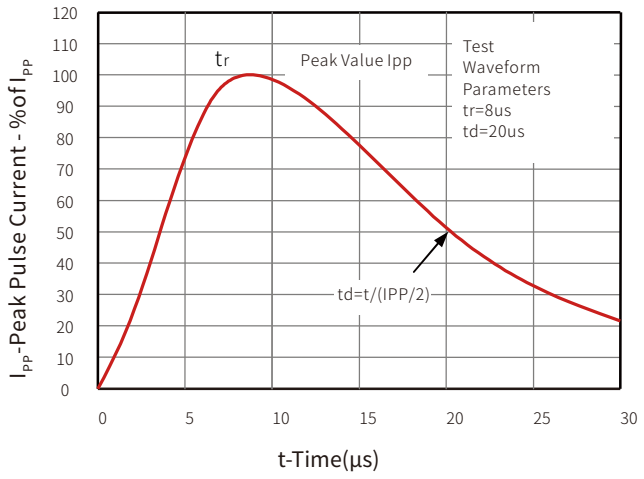
Symbol	Parameter	Value	Unit
P_{pp}	Peak Pulse Power (tp=8/20μs waveform)	110	Watts
T_J	Operating Temperature Range	-40 to +125	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

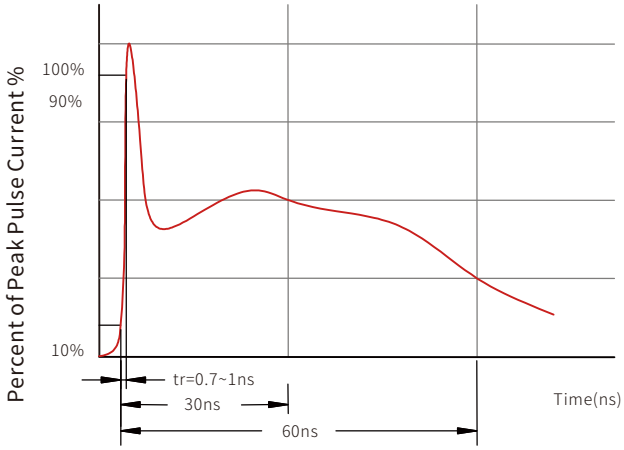
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				5	V
V_{BR}	Reverse Breakdown Voltage	I_T=1mA	6			V
I_R	Reverse Leakage Current	V_{RWM}=5V			0.1	μA
V_C	Clamping Voltage	I_{PP}=1A,tp=8/20μs			12	V
V_C	Clamping Voltage	I_{PP}=3A,tp=8/20μs			20	V
V_C	Clamping Voltage	I_{PP}=4.5A,tp=8/20μs			25	V
I_{PP}	Peak Pulse Current	tp=8/20μs			4.5	A
C_J	Off State Junction Capacitance	V_R=0V, f=1MHz		0.5		pF

CHARACTERISTIC CURVES

8/20μs Pulse Waveform

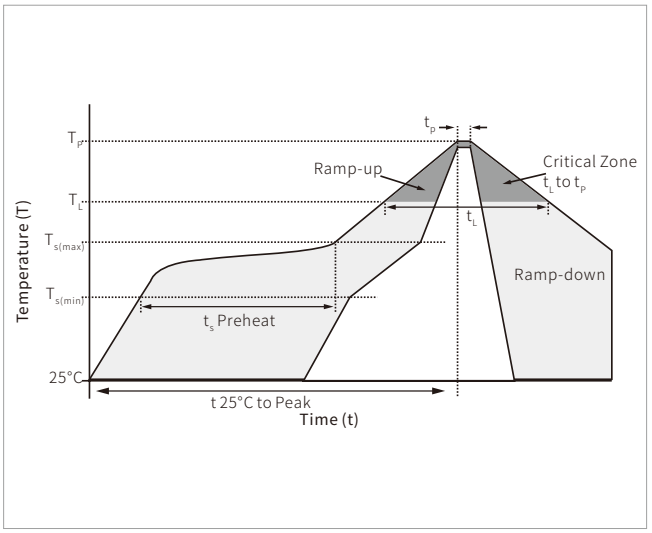


ESD Pulse Waveform (according to IEC 61000-4-2)

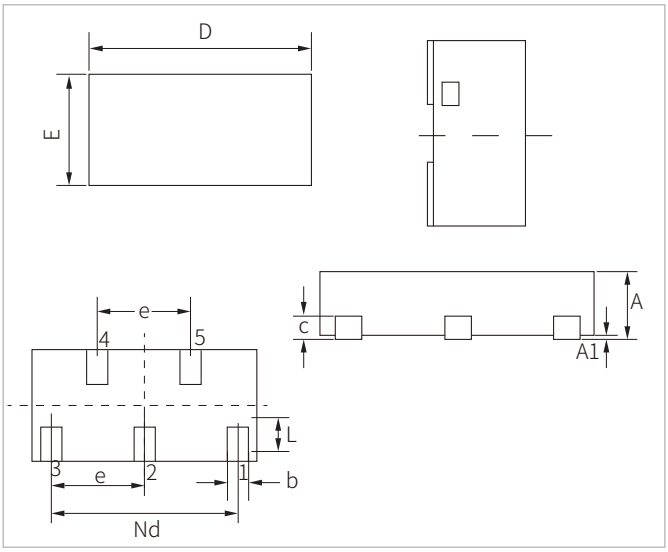


SOLDERING PARAMETERS

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

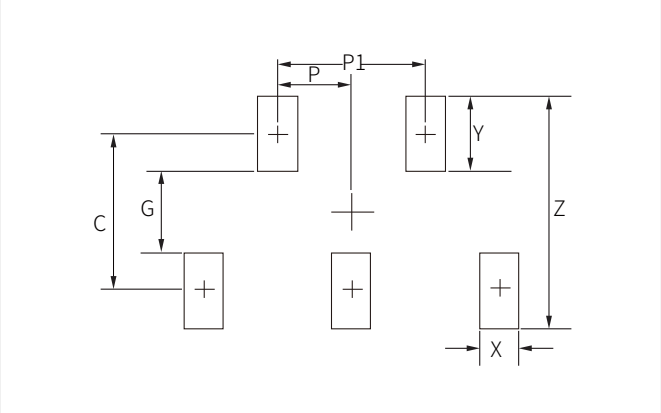


DFN2010-5L PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.60	0.016	0.024
A1	0.00	0.05	0.000	0.002
b	0.15	0.25	0.006	0.010
c	0.152REF		0.006REF	
D	1.90	2.10	0.075	0.083
Nd	1.60BSC		0.063BSC	
e	0.80BSC		0.031BSC	
E	0.90	1.10	0.035	0.043
L	0.30	0.40	0.012	0.016

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
C	0.85	0.033
G	0.25	0.010
P	0.40	0.016
P1	0.80	0.031
X	0.20	0.008
Y	0.60	0.024
Z	1.45	0.057

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SEULC7534P5	DFN2010-5L	3000PCS	7”

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