

DESCRIPTION

The SE10DS15U3.3UD1 is an ultra low capacitance TVS array designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to high speed data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE-(Cable Discharge Events), and EFT (electrical fast transients).

The SE10DS15U3.3UD1 has a low capacitance between I/O pins. This allows it to be used on circuits operating in excess of 3GHz without signal attenuation.

FEATURES

- > 150 Watts Peak Pulse Power per Line (tp=8/20µs)
- > Protects four I/O lines
- > Operating voltage: 3.3V
- > Low capacitance: 0.5pF typical (I/O to GND)
- > Weight: 8.0mg

APPLICATIONS

- > High Definition Multi-Media Interface (HDMI)
- > Digital Visual Interface (DVI)
- > MDDI Ports
- > PCI Express
- > Serial ATA
- > 10/100/1000 Ethernet

IEC COMPATIBILITY

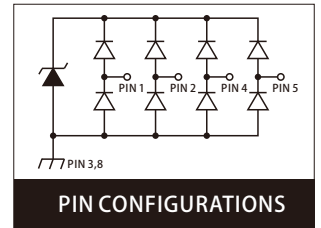
- > IEC61000-4-2 (ESD) ±15kV (air), ±10kV (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)
- > IEC61000-4-5 (Lightning) 5A (8/20 µs)

MAXIMUM RATINGS @ 25° C UNLESS OTHERWISE SPECIFIED

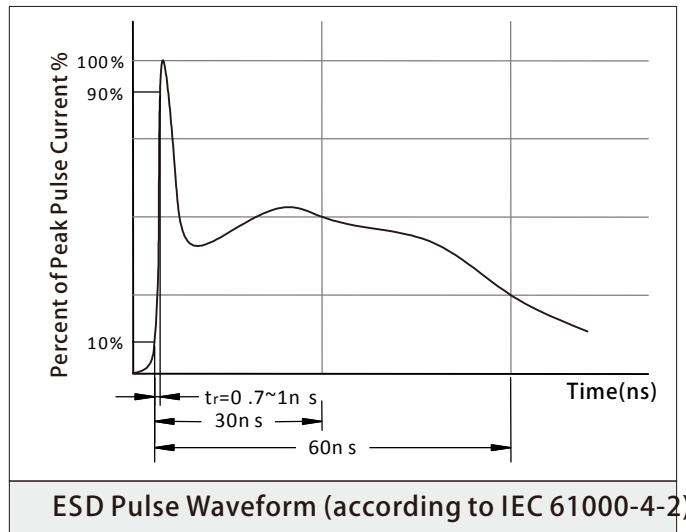
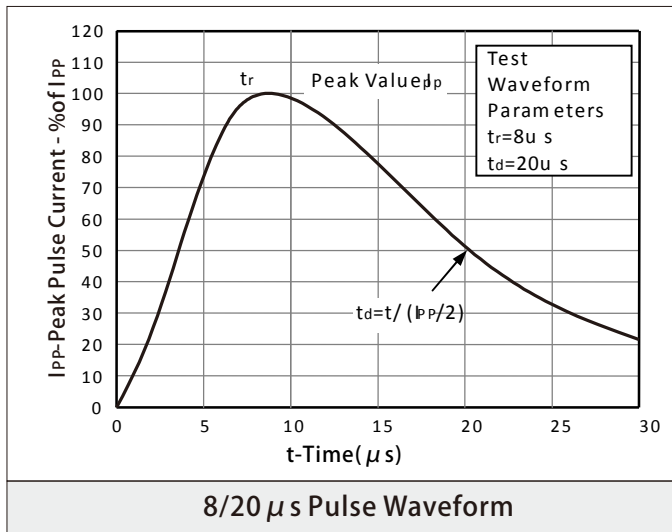
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20 µs waveform)	PPP	150	Watts
Operating Temperature Range	TJ	-55~125	° C
Storage Temperature Range	TSTG	-55~150	° C

ELECTRICAL CHARACTERISTICS PER LINE @ 25° C UNLESS OTHERWISE SPECIFIED

PART NUMBER	V _{RWM}	V _B	I _T	V _C		I _R	C _j	C _j
	(V) Max.	(V) Min.	(mA)	Max.	@A	(µA) Max.	I/O-I/O (pF) Typ.	I/O-GND (pF) Typ.
SE10DS15U3.3UD1	3.3	5.6	1	13.0	5.0	1	0.25	0.5

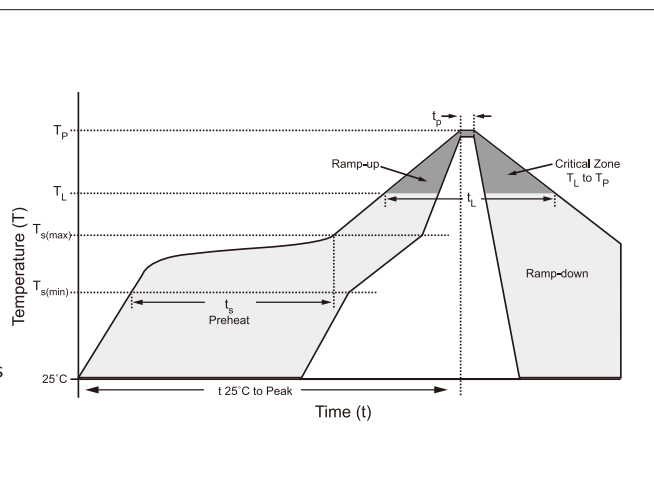


CHARACTERISTIC CURVES



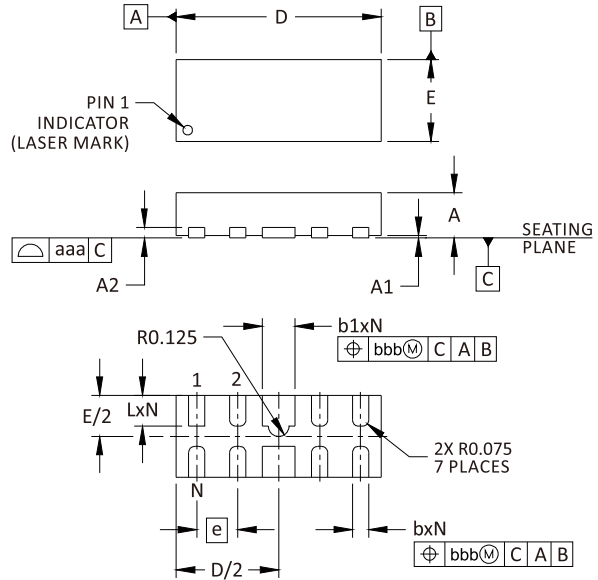
REFLOW PROFILE

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150° C
	Temperature Max (Ts(max))	200° C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp(TL) to peak)		3° C /second max
Ts(max) to TL - Ramp-up Rate		3° C /second max
Reflow	Temperature (TL) (Liquidus)	217° C
	Time (min to max) (tl)	60 – 150 seconds
Peak Temperature (Tp)		260° C
Time within 5° C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6° C /second max
Time 25° C to peak Temperature (Tp)		8 minutes Max.
Do not exceed		260° C

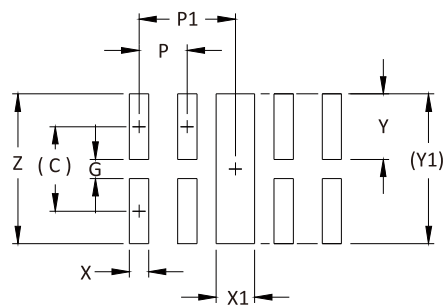


DFN2510 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.60	0.020	0.026
A1	0	0.05	0	0.002
A2	(0.13)		(0.005)	
b	0.15	0.25	0.006	0.010
b1	0.35	0.45	0.014	0.018
D	2.40	2.60	0.094	0.102
E	0.90	1.10	0.035	0.043
e	0.50 BSC		0.020 BSC	
L	0.30	0.45	0.012	0.018
N	8		8	
aaa	0.08		0.003	
bbb	0.10		0.004	



PAD LAYOUT DIMENSIONS		
DIM	MILLIMETERS	INCHES
	NOMINAL	NOMINAL
C	0.87	0.034
G	0.20	0.008
P	0.50	0.020
P1	1.00	0.039
X	0.20	0.008
X1	0.40	0.016
Y	0.68	0.027
Y1	1.55	0.061
Z	1.55	0.061



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE10DS15U3.3UD1	DFN2510P10	3000PCS	7"

CONTACT US

Headquarters

Room 43A, Block C, E lectronic and Technology Building, Shennan Road, Futian District, Shenzhen
China

Hotline

+86-0755-83239646

Web

[Http://www.szshaoxin.com](http://www.szshaoxin.com)

By Telephone

General: +86-0755-83239646

By Fax

+86-0755-83239644
