



SE03L6ADV

ESD PROTECTION ARRAY

FEATURES

- Low operating and clamping voltage
- Low Leakage
- Working voltage: 3.3V
- Suffix "H" indicates Halogen-free parts, ex.SE03L6ADVH

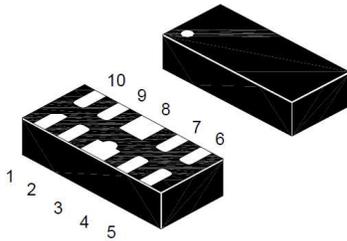
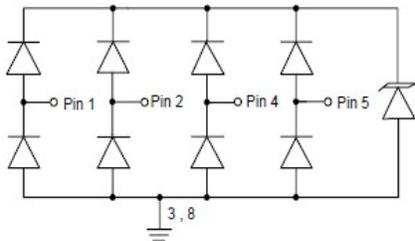
APPLICATIONS

- Digital Visual Interface(DVI)
- PCI Express
- High Definition Multi-Media Interface(HDMI)
- Serial ATA

MECHANICAL DATA

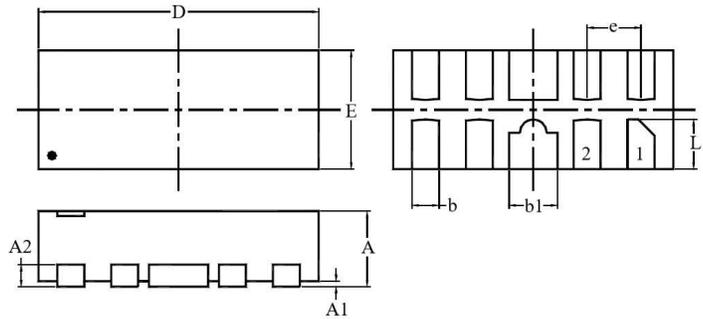
Case : DFN2.5x1-10L(DFN2510) Package

CIRCUIT DIAGRAM



1. I/O 2. I/O 3. GND 4. I/O 5. I/O
6. NC 7. NC 8. GND 9. NC 10. NC

OUTLINE DRAWING AND DIMENSION



Dimensions	Unit (mm)		Unit (inch)	
	MIN.	MAX.	MIN.	MAX.
A	0.460	0.510	0.018	0.020
A1	0.000	0.050	0.000	0.002
A2	0.130		0.005	
b	0.150	0.250	0.006	0.010
b1	0.350	0.450	0.014	0.018
D	2.400	2.600	0.094	0.102
E	0.900	1.100	0.035	0.043
e	0.500		0.020	
L	0.300	0.425	0.012	0.017

Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±25	
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	60	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	5	A
Operating Temperature Range	T_j	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C



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Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified)

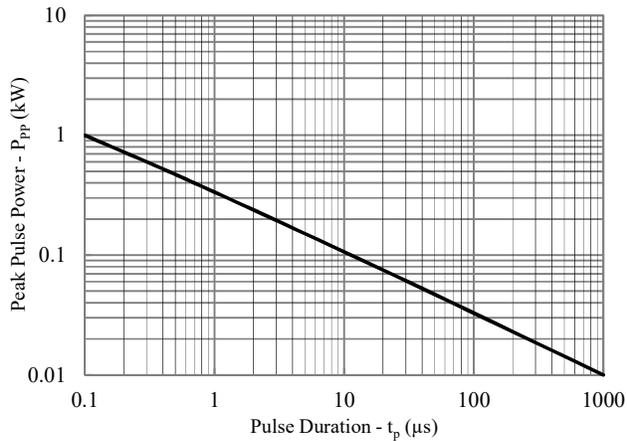
Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Units
Working Peak Reverse Voltage	Any I/O pin to ground	V_{RWM}	-	-	3.3	V
Punch Through Voltage	$I_{PT}= 2\mu A$ Any I/O pin to ground	V_{PT}	3.8	-	5.5	V
Reverse Leakage Current	$V_{RWM}= 3.3V$ Any I/O pin to ground	I_R	-	-	0.1	μA
Clamping Voltage	$I_{pp}= 1A,$ Any I/O pin to ground	V_C	-	-	9.0	V
	$I_{pp}= 5A,$ Any I/O pin to ground		-	-	12.0	V
Junction Capacitance	$V_R= 0V, f= 1MHz,$ Between I/O pins	C_j	-	-	0.40	pF
	$V_R= 0V, f= 1MHz,$ Any I/O pin to Ground	C_j	-	-	0.65	pF



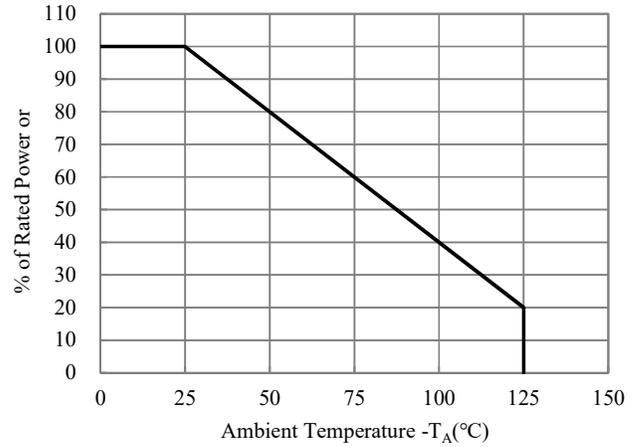
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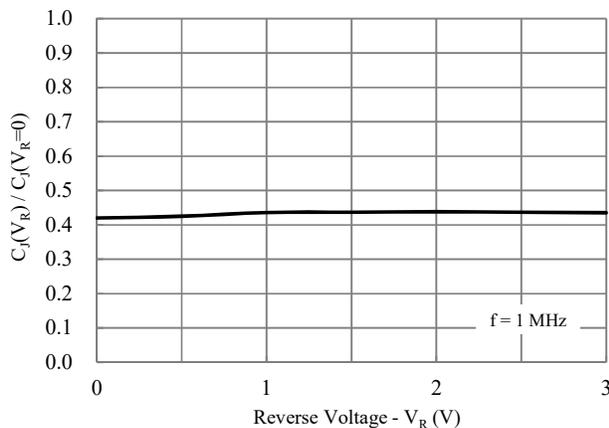
RATINGS AND CHARACTERISTIC CURVES



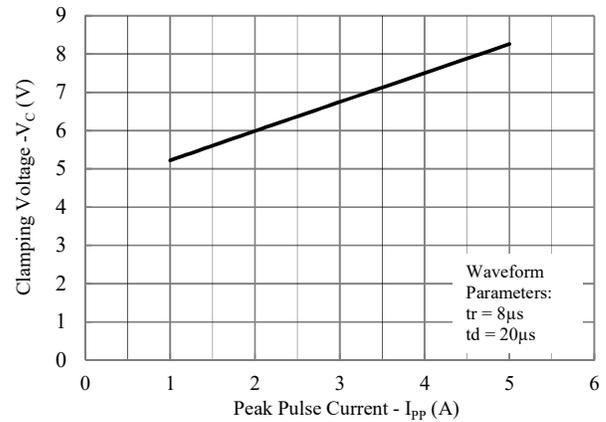
Non-Repetitive Peak Pulse Power vs. Pulse Time



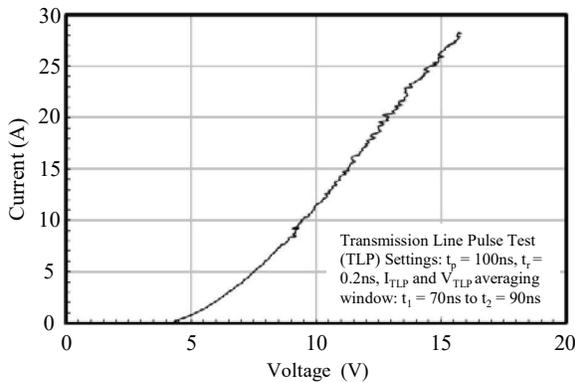
Power Derating Curve



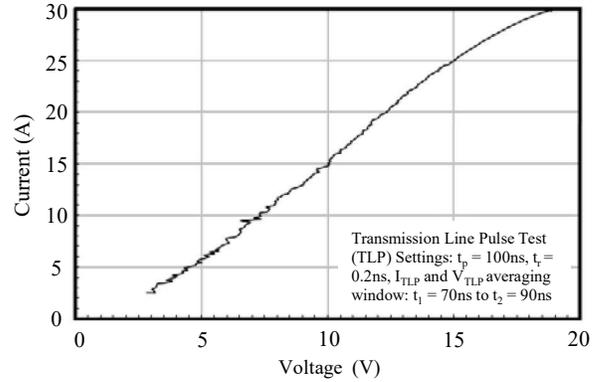
Junction Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



TLP Characteristic (Positive Pulse)



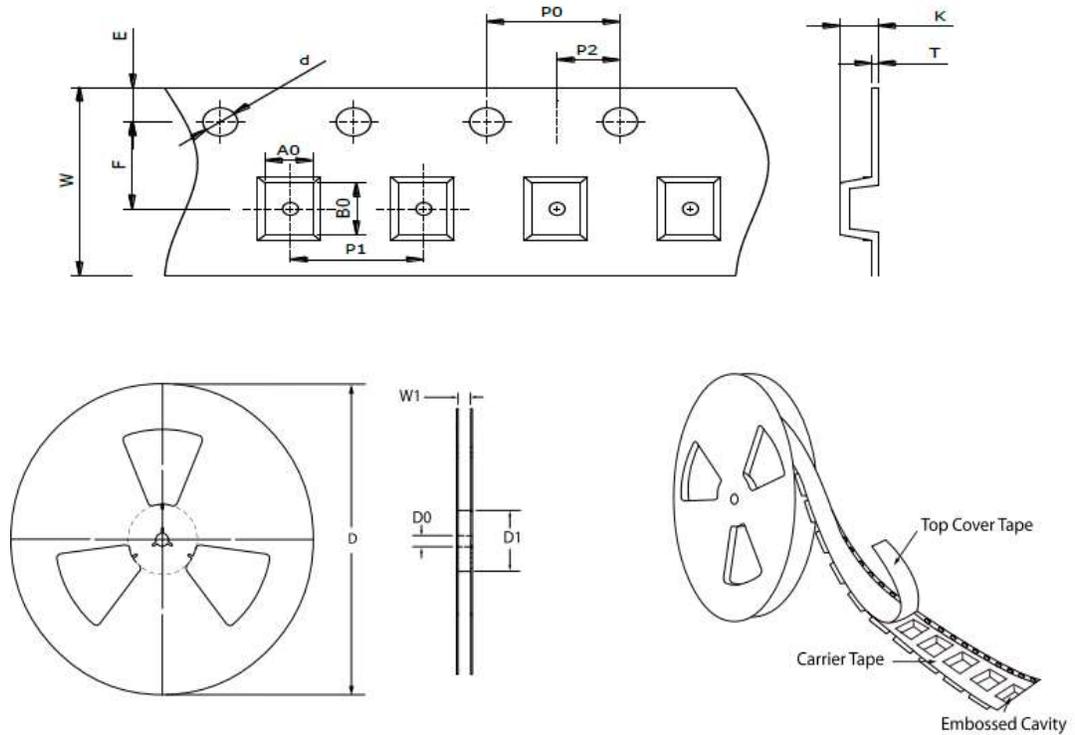
TLP Characteristic (Negative Pulse)



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TAPE & REEL SPECIFICATION



Item	Symbol	DFN2510
Carrier width	A ₀	1.20 ± 0.10
Carrier length	B ₀	2.70 ± 0.10
Carrier depth	K	0.65 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D ₀	13.00 ± 0.20
Reel inner diameter	D ₁	MIN. 54.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P ₀	4.00 ± 0.10
Punch hole pitch	P ₁	4.00 ± 0.10
Embossment center	P ₂	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	MAX. 13.50

ORDER INFORMATION

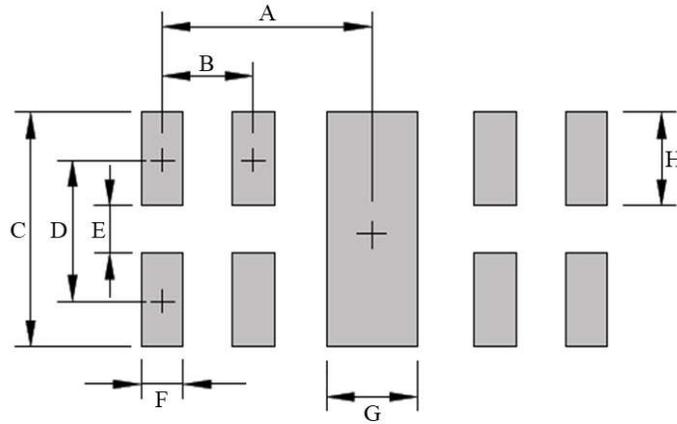
Package	Marking Code	Reel Size	Quantity
DFN2510	F5	7"	4,000



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SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D	E	F	G	H
DFN2510	1.000	0.500	1.550	0.875	0.200	0.200	0.400	0.675