SE05L8AEBDVH

ESD PROTECTION ARRAY

FEATURES

· Low Capacitance
· Low Leakage Current
· Working voltage: 5.0V
· Suffix "H" indicates Halogen-free parts, ex.SE05L8AEBDVH

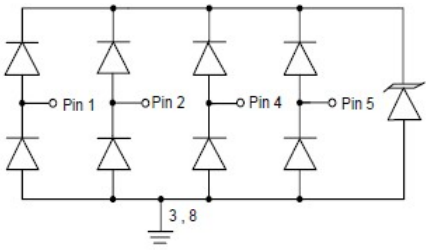
APPLICATIONS

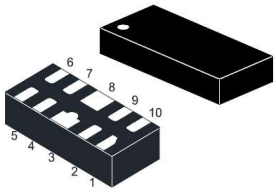
· Digital Visual Interface(DVI)
· PCI Express
· High Definition Multi-Media Interface(HDMI)
· Serial ATA

MECHANICAL DATA

Case : DFN2510(DFN2510-10L) Package

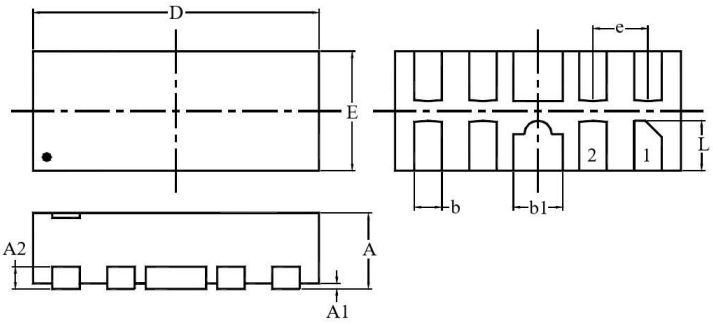
CIRCUIT DIAGRAM





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
Peak Pulse Power (t_p=8/20μs)	P_{PP}	100	W
Peak Pulse Current (t_p=8/20μs)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±25 ±20	kV
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

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 GND	V_{RWM}	-	-	5.0	V
Reverse Breakdown Voltage	I_T=1mA, Any I/O pin to GND	V_{BR}	6.0	-	-	V
Reverse Leakage Current	V_{RWM}=5V, Any I/O pin to GND	I_R	-	-	1.0	μA
Clamping Voltage	I_{PP}=1A, t_p=8/20μs Any I/O pin to GND	V_C	-	-	11	V
	I_{PP}=5A, t_p=8/20μs Any I/O pin to GND		-	-	16	
Clamping Voltage	I_{TLP}=4A, t_p=0.2/100ns(TLP), Any I/O pin to GND	V_C	-	10.5	-	V
	I_{TLP}=16A, t_p=0.2/100ns(TLP), Any I/O pin to GND		-	16.0	-	
Dynamic Resistance (Note 1)	-	R_{DYN}	-	0.46	-	Ω
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 GND		-	-	0.80	

Note:

1. Dynamic Resistance calculated from I_{TLP}=4A to I_{TLP}=16A.

RATINGS AND CHARACTERISTIC CURVES

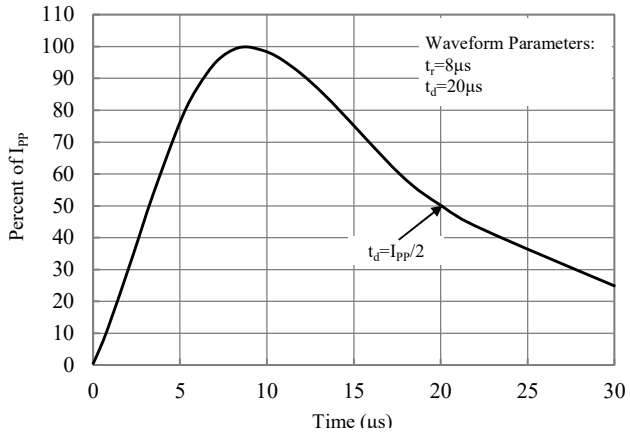


Fig. 1 Pulse Waveform

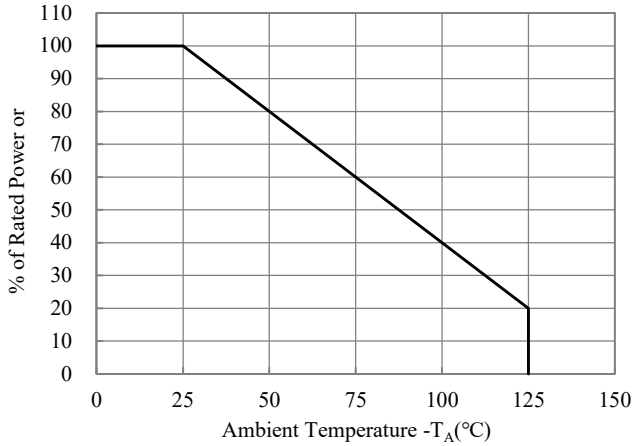


Fig. 2 Power Derating Curve

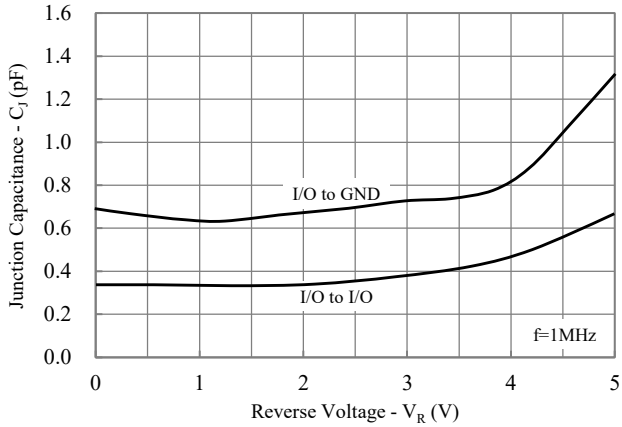


Fig. 3 Junction Capacitance vs. Reverse Voltage

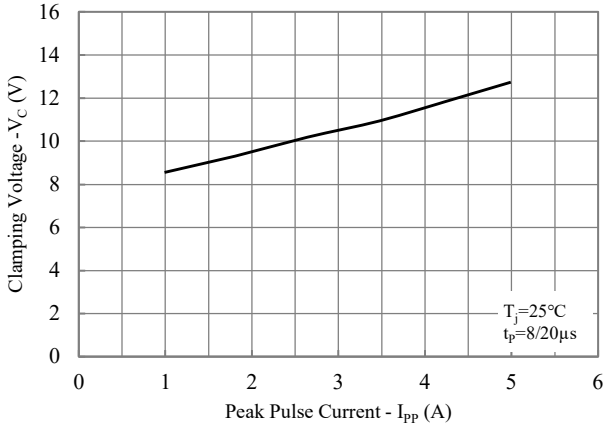


Fig. 4 Clamping Voltage vs. Peak Pulse Current

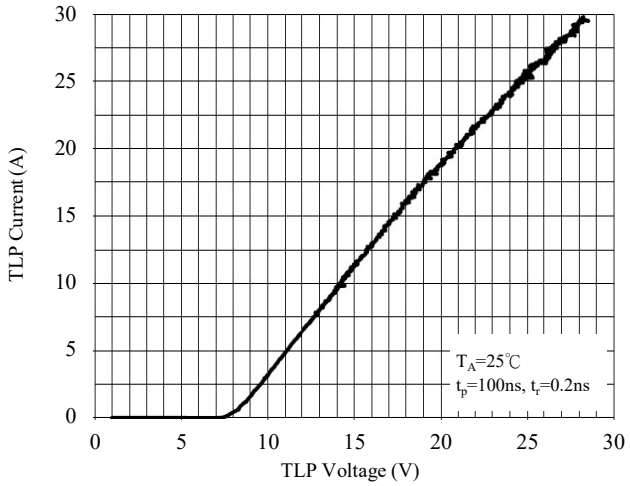


Fig. 5 TLP Curve

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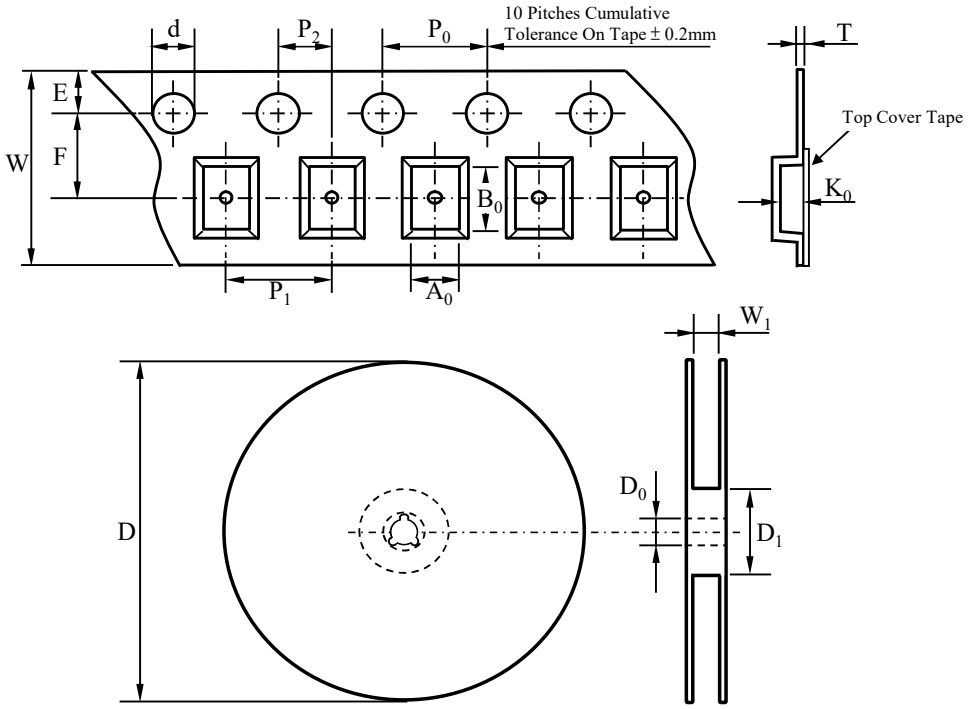
TAPE & REEL SPECIFICATION



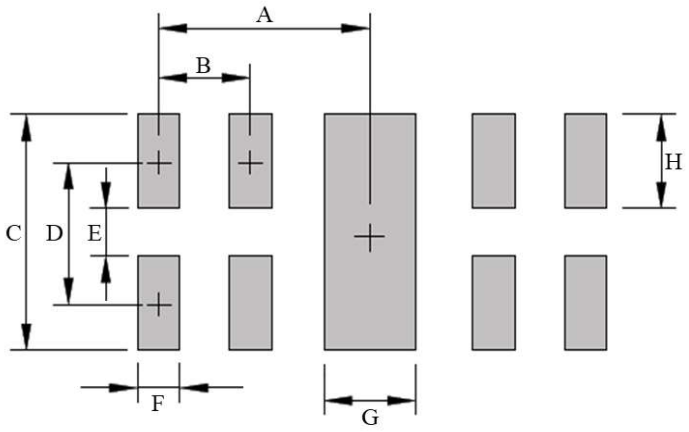
Item	Symbol	DFN2510
Carrier width	A_0	*
Carrier length	B_0	
Carrier depth	K_0	
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D_0	13.00 ± 0.20
Reel inner diameter	D_1	MIN. 54.00
Sprocke hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocke hole pitch	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

Note *: A_0, B_0, and K_0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

ORDER INFORMATION

Package	Marking Code	Reel Size	Quantity
SE05L8AEBDVH	24C	7"	4,000

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