



SE03L6ADN

ESD PROTECTION DIODE

FEATURES

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 25\text{kV}$ (contact)
- Low Clamping Voltage
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- Working Voltage 3.3V
- Suffix " H " indicated Halogen-free part, ex.SE03L6ADNH

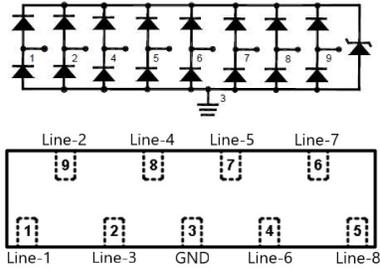
APPLICATIONS

- Display port
- Serial ATA
- USB 3.0, USB 3.1

MECHANICAL DATA

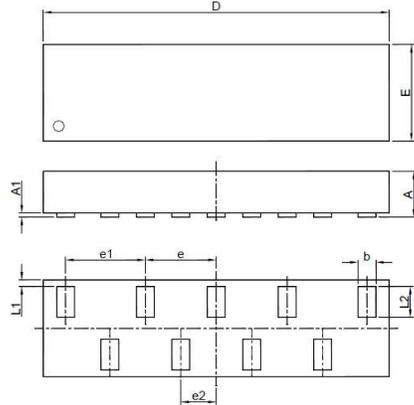
Case : DFN3810-9

PIN CONFIGURATION



Pin Description (Top View)

OUTLINE DRAWING AND DIMENSION



Dimensions	Unit (mm)		Unit (inch)	
	MIN.	MAX.	MIN.	MAX.
A	0.475	0.525	0.019	0.021
A1	0.000	0.050	0.000	0.002
b	0.150	0.250	0.006	0.010
D	3.700	3.900	0.146	0.154
E	0.900	1.100	0.035	0.043
e	0.800 TYP.		0.031 TYP.	
e1	0.900 TYP.		0.035 TYP.	
e2	0.400 TYP.		0.016 TYP.	
L1	0.025	0.075	0.001	0.003
L2	0.250	0.350	0.010	0.014

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

Parameter	Symbol	Value	Units
Peak Pulse Current($t_p=8/20\mu\text{s}$ waveform)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	kV
ESD per IEC 61000-4-2 (Contact)		25	
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	75	W
Operating Temperature Range	T_J	-40 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C



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Electrical Characteristics ($T_{amb}=25^{\circ}C$ Unless Otherwise Specified)

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse Working Voltage	Between I/O and GND	V_{RWM}	-	-	3.3	V
Punch-Through Voltage	$I_{PT} = 2\mu A$, Any I/O to GND	V_{PT}	3.8	-	5.5	V
Reverse Leakage Current	$V_R = 3.3V$, Any I/O to GND	I_R	-	-	0.1	μA
Clamping Voltage	$I_{PP} = 1A$, $t_p = 8/20\mu s$, Any I/O to GND	V_C	-	-	9	V
	$I_{PP} = 5A$, $t_p = 8/20\mu s$, Any I/O to GND		-	-	12	V
ESD Clamping Voltage	$I_{PP} = 16A$, TLP = 0.2/100ns	V_C	-	11.8	-	V
	$I_{PP} = -16A$, TLP = 0.2/100ns		-	11.7	-	V
Junction Capacitance	$V_R = 0V$, $f = 1MHz$, Any I/O pin to GND	C_j	-	-	0.65	pF
	$V_R = 0V$, $f = 1MHz$, Between I/O pins		-	-	0.40	



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RATINGS AND CHARACTERISTIC CURVES

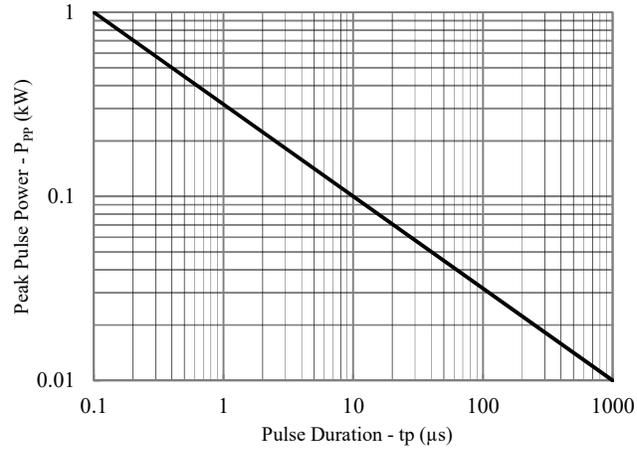


Fig.1-Non-Repetitive Peak Pulse Power vs. Pulse Time

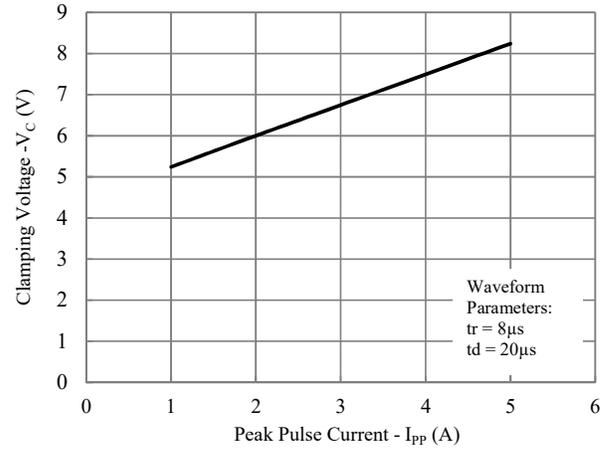


Fig.2-Clamping Voltage vs. Peak Pulse Current

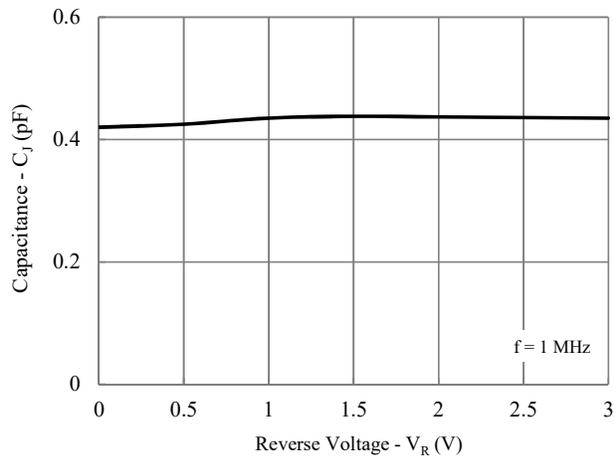


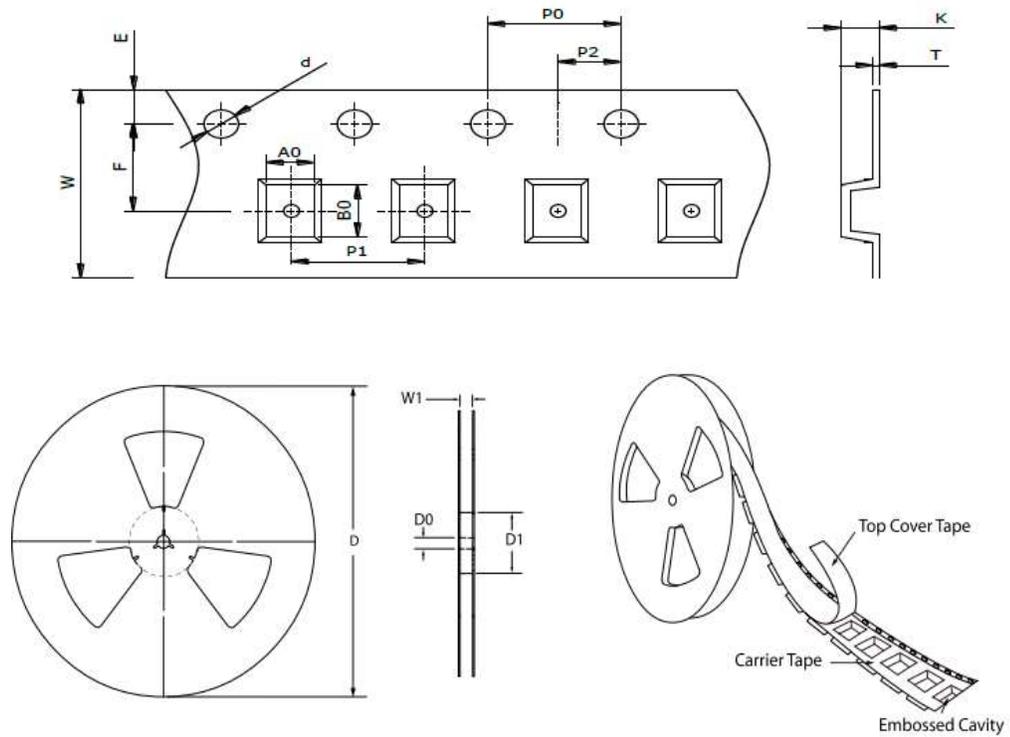
Fig.3-Junction Capacitance vs. Reverse Voltage



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TAPE & REEL SPECIFICATION



Item	Symbol	DFN3810-9
Carrier width	A ₀	1.20 ± 0.10
Carrier length	B ₀	4.00 ± 0.10
Carrier depth	K	0.53 ± 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. 10.00

ORDER INFORMATION

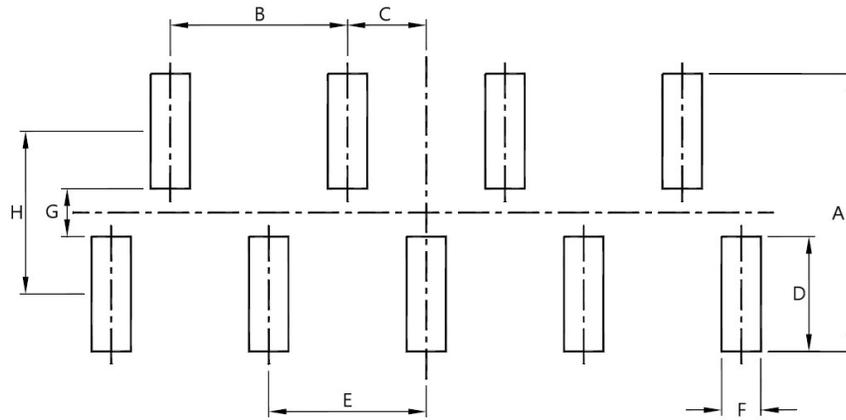
Package	Marking Code	Reel Size	Quantity
DFN3810-9	3328MP	7"	5,000



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SUGGESTED SOLDER PAD LAYOUT



Unit : mm

PACKAGE	A	B	C	D	E	F	G	H
DFN3810-9	1.45	0.90	0.40	0.60	0.80	0.20	0.25	0.85