

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

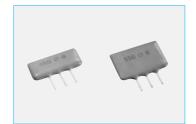
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









# DS1L series, SIP thin film delay lines

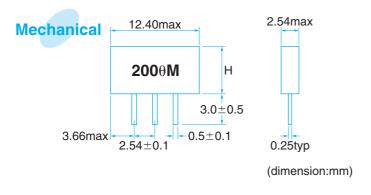


These delay lines provide timing control to 10 nanosecond in a SIP solder lead three pin package. Thin film on ceramic construction provide for high reliability and high bandwidth performance.





## **SPECIFICATIONS**



Time Delay	Н	Form
0.1~5.0ns	6.35max	D
5.5~10.0ns	9.20max	V

# **Equivalent circuit**



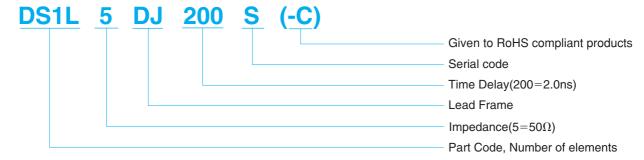
## **Electrical**

Туре	DS1L	
Time Delay range	0.1~2.0ns (0.10ns step) 2.25~5.0ns (0.25ns step)	
	5.5~10.0ns (0.50ns step)	
Time Delay Tolerance	$\pm 0.050$ ns (0.10 $\sim$ 0.20ns) $\pm 0.125$ ns (2.25 $\sim$ 5.00ns) $\pm 0.250$ ns (5.00 $\sim$ 10.0ns)	
Characteristic Impedance	50±5 Ω	

Туре	DS1L	
DC Resistance	1.0 $\Omega/\text{ns}$ max	
Rated Current	100mA	
Temp. coefficient of Td	<150ppm/°C	
Insulation resistance	$>$ 100M $\Omega$ 50V	
Operating temperature	−10~+85°C	
Storage Temperature	-40∼+125°C	



#### **PART NUMBER**







# DL1L series, SIP thin film delay lines

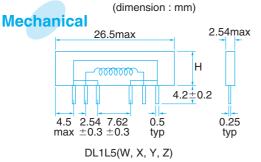


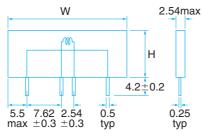
Performance to 5 GHz. For many high frequency applications, discrete, tight tolerance (+/-50 picosecond) delay lines can be used to help solve your TTL, and ECL timing and clock deskew needs.



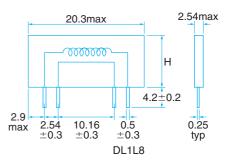
#### **SPECIFICATIONS**

RoHS compliant





DL1L5(3, 4, 5, O)



DL1L5(W, X, Y, Z)

Time Delay	Delay H	
0.1∼0.5ns	7.60max	W
0.6~2.6ns	10.10max	Χ
2.7~3.5ns	14.00max	Υ
3.6~5.1ns	16.45max	Z

DL1L5(3, 4, 5, O)

Time Delay	Н	W	Code
0.1~1.3ns	7.50max	26.50max	3
1.4~2.5ns	10.10max	26.50IIIax	4
2.6~3.4ns	12.70max	07 00may	5
3.6~10ns	15.50max	27.90max	0

DL1L8

Time Delay	Time DelayTolerance	Н	Code
0.1~1.2ns	±0.05ns	7.50max	В
1.3~2.6ns	±0.05ns		F
2.8ns	±0.10ns	12.00max	
3.0~5.0ns	+0.25ns		

### **Electrical**

Туре	DL1L5(W, X, Y, Z)	DL1L5(3, 4, 5, O)			DL1L8
Time Delay Range	$0.1{\sim}5.1$ ns (0.1ns step)		2.6~4.90ns (0.2ns step)		0.1~2.6ns(0.1ns step) 3.0~5.0ns(0.5ns step)
Time Delay Tolerance	±0.050ns	0.05ns	±0.100ns	±0.250ns	above table
Characteristic Impedance		$50{\pm}5\Omega$			75 $\pm$ 7.5 $\Omega$
Retune Loss	20dB min			20dB min	
DC Resistance	$0.1{\sim}0.5 \text{ns}: 0.5 \Omega \text{max}$ $0.6{\sim}2.6 \text{ns}: 1.0 \Omega \text{max}$ $2.7{\sim}3.5 \text{ns}: 2.0 \Omega \text{max}$ $3.6{\sim}5.1 \text{ns}: 3.0 \Omega \text{max}$	$0.1{\sim}1.0$ ns : $0.8\Omega$ max $1.1{\sim}10$ ns : $0.8\Omega$ max/ 1ns		$0.1{\sim}1.0$ ns : $<1.7\Omega$ $0.1{\sim}5.0$ ns : $<1.7\Omega/$ ns	
Rise / fall time	1ns or less	1ns or less	2ns c	r less	>1ns
Rated Current	100mA −40∼+85°C				
Operating temperature				−10~+85°C	



## **PART NUMBER**

