

DS1L series, SIP thin film delay lines



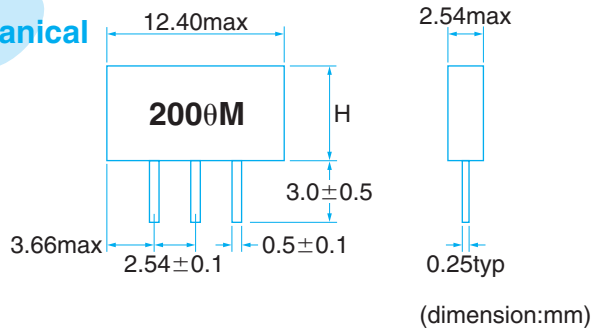
These delay lines provide timing control to 10 nanosecond in a SIP solder lead three pin package. Thin film on ceramic construction provide for high reliability and high bandwidth performance.

RoHS compliant



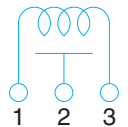
SPECIFICATIONS

Mechanical



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

Equivalent circuit



Electrical

Type	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	±0.050ns (0.10~0.20ns)
	±0.125ns (2.25~5.00ns)
	±0.250ns (5.00~10.0ns)
Characteristic Impedance	50±5 Ω

Type	DS1L
DC Resistance	1.0 Ω/ns max
Rated Current	100mA
Temp. coefficient of Td	<150ppm/°C
Insulation resistance	>100M Ω 50V
Operating temperature	-10~+85°C
Storage Temperature	-40~+125°C



PART NUMBER

DS1L 5 DJ 200 S (-C)

- Given to RoHS compliant products
- Serial code
- Time Delay(200=2.0ns)
- Lead Frame
- Impedance(5=50Ω)
- Part Code, Number of elements



DL1L series, SIP thin film delay lines



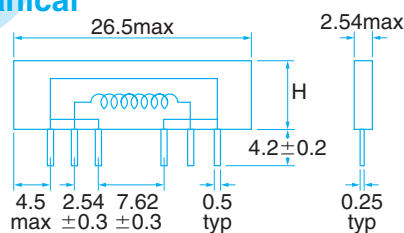
Performance to 5 GHz. For many high frequency applications, discrete, tight tolerance(± 50 picosecond) delay lines can be used to help solve your TTL, and ECL timing and clock deskew needs.

RoHS compliant

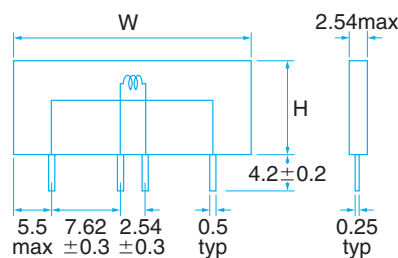
SPECIFICATIONS

Mechanical

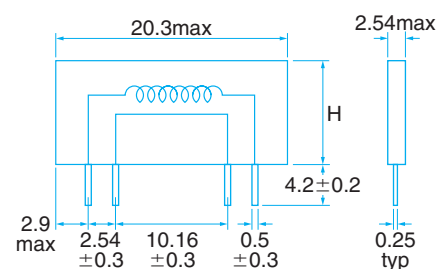
(dimension : mm)



DL1L5(W, X, Y, Z)



DL1L5(3, 4, 5, O)



DL1L8

DL1L5(W, X, Y, Z)

Time Delay	H	Code
0.1~0.5ns	7.60max	W
0.6~2.6ns	10.10max	X
2.7~3.5ns	14.00max	Y
3.6~5.1ns	16.45max	Z

DL1L5(3, 4, 5, O)

Time Delay	H	W	Code
0.1~1.3ns	7.50max	26.50max	3
1.4~2.5ns	10.10max		4
2.6~3.4ns	12.70max	27.90max	5
3.6~10ns	15.50max		O

DL1L8

Time Delay	Time Delay Tolerance	H	Code
0.1~1.2ns	± 0.05 ns	12.00max	B
1.3~2.6ns	± 0.05 ns		
2.8ns	± 0.10 ns		F
3.0~5.0ns	± 0.25 ns		

Electrical

Type	DL1L5(W, X, Y, Z)	DL1L5(3, 4, 5, O)			DL1L8
Time Delay Range	0.1~5.1ns (0.1ns step)	0.1~2.50ns (0.1ns step)	2.6~4.90ns (0.2ns step)	5.0~10.0ns (0.5ns 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±5Ω				75±7.5Ω
Retune Loss	20dB min				20dB min
DC Resistance	0.1~0.5ns : 0.5Ωmax	0.1~1.0ns : 0.8Ωmax 1.1~10ns : 0.8Ωmax/ 1ns			0.1~1.0ns : <1.7Ω
	0.6~2.6ns : 1.0Ωmax				0.1~5.0ns : <1.7Ω/ns
	2.7~3.5ns : 2.0Ωmax				
	3.6~5.1ns : 3.0Ωmax				
Rise / fall time	1ns or less	1ns or less	2ns or less		>1ns
Rated Current	100mA				
Operating temperature	-40~+85°C				-10~+85°C

PART NUMBER

DL1L 5 X K 260 S (-C)

- Given to RoHS compliant products
- Serial code
- Time Delay(260=2.6ns)
- Lead Frame
- Height code
- Impedance(5=50 Ω ,8=75 Ω)
- Part Code