

SP3 Series Mini-SIP Passive Delay Modules

Similar 3-pin SIP refer to SIL2 Series • 2-tap 4-pin SIP refer to SL2T Series

- Fast Rise Time, Low DCR
- High Bandwidth $\approx 0.35 / t_r$
- Low Distortion LC Network
- Tight Delay Tolerance
- Standard Impedances: 50 to 200 Ω
- Stable Delay vs. Temperature: 100 ppm/ $^{\circ}\text{C}$
- Operating Temperature Range -55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$

Operating Specifications - Passive Delay Lines

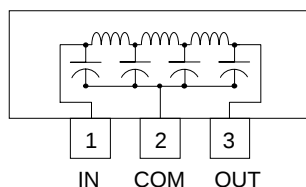
Pulse Overshoot (Pos)	5% to 10%, typical
Pulse Distortion (S)	3% typical
Working Voltage	25 VDC maximum
Dielectric Strength	100VDC minimum
Insulation Resistance	1,000 M Ω min. @ 100VDC
Temperature Coefficient	100 ppm/ $^{\circ}\text{C}$, typical
Bandwidth (f_c)	0.35/ t_r approx.
Operating Temperature Range	-55 $^{\circ}$ to +125 $^{\circ}\text{C}$
Storage Temperature Range	-65 $^{\circ}$ to +150 $^{\circ}\text{C}$

Electrical Specifications at 25 $^{\circ}\text{C}$

Delay (ns)	Rise Time 20% - 80% max. (ns)	DCR max. (Ohms)	50 Ohm Impedance P/N	55 Ohm Impedance P/N	75 Ohm Impedance P/N	100 Ohm Impedance P/N	200 Ohm Impedance P/N
0.0	—	.10	SP3-0	SP3-0	SP3-0	SP3-0	SP3-0
1 $\pm$.20	1.6	.20	SP3-1-50	SP3-1-55	SP3-1-75	SP3-1-10	SP3-1-20
1.5 $\pm$.20	1.6	.30	SP3-1.5-50	SP3-1.5-55	SP3-1.5-75	SP3-1.5-10	SP3-1.5-20
2 $\pm$.20	1.6	.40	SP3-2-50	SP3-2-55	SP3-2-75	SP3-2-10	SP3-2-20
2.5 $\pm$.20	1.6	.50	SP3-2.5-50	SP3-2.5-55	SP3-2.5-75	SP3-2.5-10	SP3-2.5-20
3 $\pm$.20	1.7	.60	SP3-3-50	SP3-3-55	SP3-3-75	SP3-3-10	SP3-3-20
4 $\pm$.20	1.7	.70	SP3-4-50	SP3-4-55	SP3-4-75	SP3-4-10	SP3-4-20
5 $\pm$.25	1.8	.80	SP3-5-50	SP3-5-55	SP3-5-75	SP3-5-10	SP3-5-20
6 $\pm$.30	2.0	.85	SP3-6-50	SP3-6-55	SP3-6-75	SP3-6-10	SP3-6-20
7 $\pm$.30	2.3	.90	SP3-7-50	SP3-7-55	SP3-7-75	SP3-7-10	SP3-7-20
8 $\pm$.30	2.7	.95	SP3-8-50	SP3-8-55	SP3-8-75	SP3-8-10	SP3-8-20
9 $\pm$.30	2.9	1.10	SP3-9-50	SP3-9-55	SP3-9-75	SP3-9-10	SP3-9-20
10 $\pm$.30	3.3	1.20	SP3-10-50	SP3-10-55	SP3-10-75	SP3-10-10	SP3-10-20
11 $\pm$.40	3.3	1.40	SP3-11-50	SP3-11-55	SP3-11-75	SP3-11-10	SP3-11-20
12 $\pm$.50	3.6	1.50	SP3-12-50	SP3-12-55	SP3-12-75	SP3-12-10	SP3-12-20
13 $\pm$.60	4.0	1.60	SP3-13-50	SP3-13-55	SP3-13-75	SP3-13-10	SP3-13-20
14 $\pm$.70	4.3	1.60	SP3-14-50	SP3-14-55	SP3-14-75	SP3-14-10	SP3-14-20
15 $\pm$.70	4.6	1.70	SP3-15-50	SP3-15-55	SP3-15-75	SP3-15-10	SP3-15-20
16 $\pm$.80	4.8	1.80	SP3-16-50	SP3-16-55	SP3-16-75	SP3-16-10	SP3-16-20
20 $\pm$ 1.0	5.6	2.00	SP3-20-50	SP3-20-55	SP3-20-75	SP3-20-10	SP3-20-20

1. Rise Times are measured from 20% to 80% points.
2. Delay Times measured at 50% points of leading edge.
3. Output terminated to ground through $R_L = Z_0$

SP3 Style Schematic



Dimensions in inches (mm)

