

# 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  $\Omega$
- 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

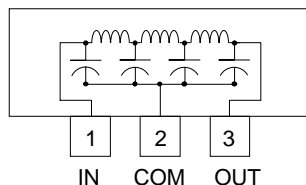
Pulse Overshoot (Pos)	5% to 10%, typical
Pulse Distortion (S)	3% typical
Working Voltage	25 VDC maximum
Dielectric Strength	100VDC minimum
Insulation Resistance	1,000 M $\Omega$ min. @ 100VDC
Temperature Coefficient	100 ppm/ $^{\circ}\text{C}$ , typical
Bandwidth ( $f_c$ )	0.35/ $t_r$ approx.
Operating 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	SP3-1-100	SP3-1-200
1.5 $\pm$ .20	1.6	.30	SP3-1.5-50	SP3-1.5-55	SP3-1.5-75	SP3-1.5-100	SP3-1.5-200
2 $\pm$ .20	1.6	.40	SP3-2-50	SP3-2-55	SP3-2-75	SP3-2-100	SP3-2-200
2.5 $\pm$ .20	1.6	.50	SP3-2.5-50	SP3-2.5-55	SP3-2.5-75	SP3-2.5-100	SP3-2.5-200
3 $\pm$ .20	1.7	.60	SP3-3-50	SP3-3-55	SP3-3-75	SP3-3-100	SP3-3-200
4 $\pm$ .20	1.7	.70	SP3-4-50	SP3-4-55	SP3-4-75	SP3-4-100	SP3-4-200
5 $\pm$ .25	1.8	.80	SP3-5-50	SP3-5-55	SP3-5-75	SP3-5-100	SP3-5-200
6 $\pm$ .30	2.0	.85	SP3-6-50	SP3-6-55	SP3-6-75	SP3-6-100	SP3-6-200
7 $\pm$ .30	2.3	.90	SP3-7-50	SP3-7-55	SP3-7-75	SP3-7-100	SP3-7-200
8 $\pm$ .30	2.7	.95	SP3-8-50	SP3-8-55	SP3-8-75	SP3-8-100	SP3-8-200
9 $\pm$ .30	2.9	1.10	SP3-9-50	SP3-9-55	SP3-9-75	SP3-9-100	SP3-9-200
10 $\pm$ .30	3.3	1.20	SP3-10-50	SP3-10-55	SP3-10-75	SP3-10-100	SP3-10-200
11 $\pm$ .40	3.3	1.40	SP3-11-50	SP3-11-55	SP3-11-75	SP3-11-100	SP3-11-200
12 $\pm$ .50	3.6	1.50	SP3-12-50	SP3-12-55	SP3-12-75	SP3-12-100	SP3-12-200
13 $\pm$ .60	4.0	1.60	SP3-13-50	SP3-13-55	SP3-13-75	SP3-13-100	SP3-13-200
14 $\pm$ .70	4.3	1.60	SP3-14-50	SP3-14-55	SP3-14-75	SP3-14-100	SP3-14-200
15 $\pm$ .70	4.6	1.70	SP3-15-50	SP3-15-55	SP3-15-75	SP3-15-100	SP3-15-200
16 $\pm$ .80	4.8	1.80	SP3-16-50	SP3-16-55	SP3-16-75	SP3-16-100	SP3-16-200
20 $\pm$ 1.0	5.6	2.00	SP3-20-50	SP3-20-55	SP3-20-75	SP3-20-100	SP3-20-200

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)

