

# SIP5 Series 10-Tap High Performance Passive Delays

- Fast Rise Time, Low DCR
- High Bandwidth  $\approx 0.35 / t_r$
- Low Distortion LC Network
- 10 Equal Delay Taps
- Standard Impedances: 50 - 75 - 100 - 200  $\Omega$
- Stable Delay vs. Temperature: 100 ppm/ $^{\circ}C$
- Operating Temperature Range -55 $^{\circ}C$  to +125 $^{\circ}C$

## 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/ $^{\circ}C$ , typical
Bandwidth ( $f_c$ ) .....	0.35/ $t_r$ approx.
Operating Temperature Range .....	-55 $^{\circ}$ to +125 $^{\circ}C$
Storage Temperature Range .....	-65 $^{\circ}$ to +150 $^{\circ}C$

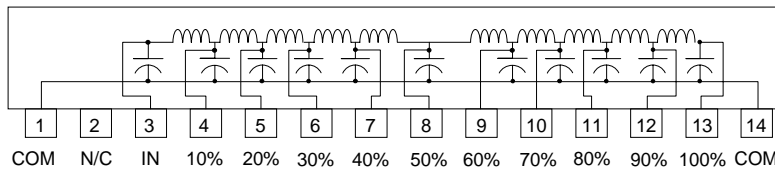
## Electrical Specifications at 25 $^{\circ}C$

Delay Tolerances		50 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	75 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	100 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	200 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)
Total (ns)	Tap-to-Tap (ns)												
5 $\pm$ 0.5	0.5 $\pm$ 0.2	SIP5-55	2.0	0.7	SIP5-57	2.1	0.8	SIP5-51	2.2	0.8	SIP5-52	2.4	0.9
10 $\pm$ 0.7	1.0 $\pm$ 0.4	SIP5-105	3.2	0.7	SIP5-107	3.6	0.8	SIP5-101	3.8	0.8	SIP5-102	5.5	1.0
15 $\pm$ 1.0	1.5 $\pm$ 0.5	SIP5-155	3.4	0.8	SIP5-157	4.1	1.2	SIP5-151	4.1	1.3	SIP5-152	6.3	1.5
20 $\pm$ 1.0	2.0 $\pm$ 0.5	SIP5-205	4.0	0.8	SIP5-207	4.4	1.3	SIP5-201	4.6	1.5	SIP5-202	8.5	1.5
25 $\pm$ 1.25	2.5 $\pm$ 0.5	SIP5-255	4.5	0.9	SIP5-257	5.3	1.5	SIP5-251	5.5	1.7	SIP5-252	9.0	2.2
30 $\pm$ 1.5	3.0 $\pm$ 0.6	SIP5-305	5.5	1.0	SIP5-307	5.8	1.7	SIP5-301	5.8	2.0	SIP5-302	10.0	2.4
35 $\pm$ 1.75	3.5 $\pm$ 0.8	SIP5-355	6.6	1.2	SIP5-357	7.2	2.0	SIP5-351	7.3	2.2	SIP5-352	13.0	2.5
40 $\pm$ 2.0	4.0 $\pm$ 1.0	SIP5-405	7.0	1.2	SIP5-407	7.5	2.0	SIP5-401	7.5	2.2	SIP5-402	13.4	3.0
45 $\pm$ 2.25	4.5 $\pm$ 1.0	SIP5-455	8.2	1.3	SIP5-457	8.2	2.1	SIP5-451	8.3	2.3	SIP5-452	15.2	3.1
50 $\pm$ 2.5	5.0 $\pm$ 1.0	SIP5-505	8.5	1.3	SIP5-507	8.5	2.1	SIP5-501	8.5	2.3	SIP5-502	15.5	3.3
55 $\pm$ 2.75	5.5 $\pm$ 1.0	SIP5-555	10.2	1.6	SIP5-557	11.2	2.2	SIP5-551	11.4	2.4	SIP5-552	16.0	3.5
60 $\pm$ 3.0	6.0 $\pm$ 1.5	SIP5-605	10.5	1.6	SIP5-607	11.4	2.3	SIP5-601	11.5	2.5	SIP5-602	16.2	3.6
70 $\pm$ 3.5	7.0 $\pm$ 1.5	SIP5-705	11.0	1.7	SIP5-707	13.0	2.6	SIP5-701	13.0	2.8	SIP5-702	17.0	3.7
75 $\pm$ 3.75	7.5 $\pm$ 1.5	SIP5-755	11.6	1.9	SIP5-757	15.0	2.8	SIP5-751	15.3	3.0	SIP5-752	19.1	3.8
80 $\pm$ 4.0	8.0 $\pm$ 1.8	SIP5-805	12.0	1.9	SIP5-807	15.3	2.9	SIP5-801	15.5	3.0	SIP5-802	19.5	4.0
90 $\pm$ 4.5	9.0 $\pm$ 2.0	SIP5-905	14.0	2.0	SIP5-907	17.3	3.0	SIP5-901	17.5	3.1	SIP5-902	20.0	4.2
100 $\pm$ 5.0	10.0 $\pm$ 2.0	SIP5-1005	18.0	2.1	SIP5-1007	19.5	3.1	SIP5-1001	20.0	3.2	SIP5-1002	24.0	4.4

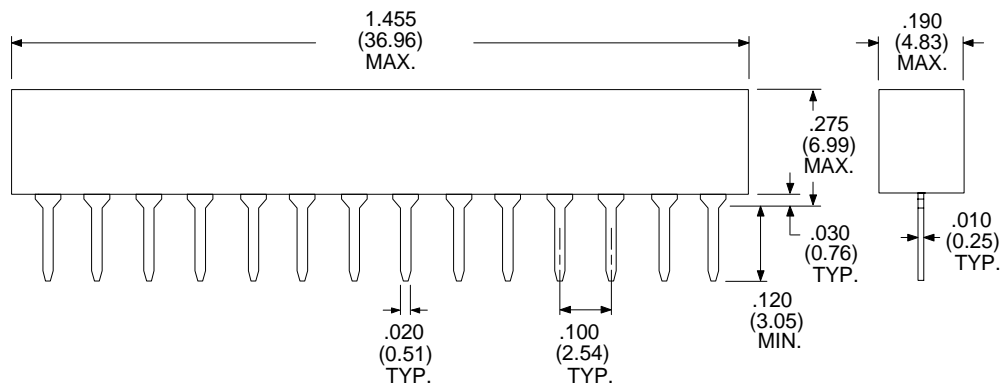
1. Rise Times are measured from 10% to 90% points.
2. Delay Times measured at 50% points of leading edge.
3. Output (100% Tap) terminated to ground through  $R_L = Z_0$

**Low-profile DIP/SMD versions refer to AIZ Series !!!  
or DIL type TZB Series**

10-Tap SIP5 Style Schematic



Dimensions in inches (mm)



Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

SIP5 9901