

# SIP4 Series 5-Tap High Performance Passive Delay Modules

- Fast Rise Time, Low DCR
- High Bandwidth  $\approx 0.35/t_r$
- Low Distortion LC Network
- 5 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 $^{\circ}C$

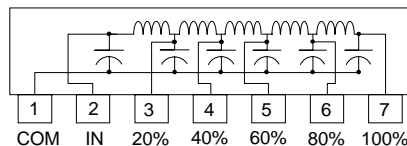
**Low-profile DIP/SMD versions refer to AMZ Series !!!**

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

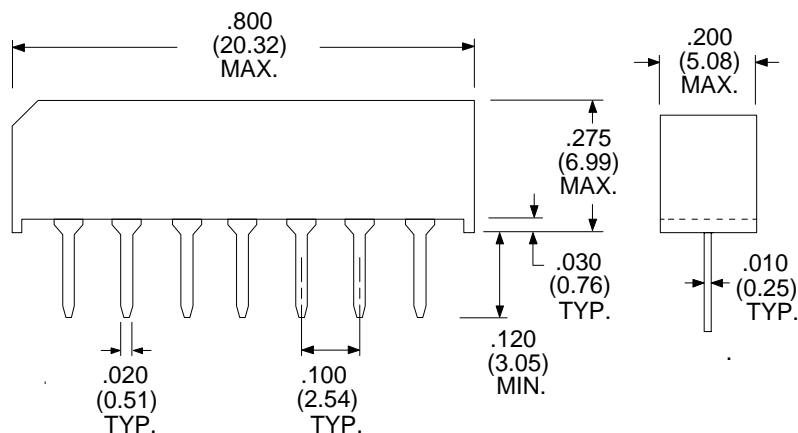
Delay Tolerances		50 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	75 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	100 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)	200 Ohm Part Number	Rise Time (ns)	DCR max. (Ohms)
Total (ns)	Tap-to-Tap (ns)												
5 $\pm$ 0.5	1.0 $\pm$ 0.4	SIP4-55	2.0	0.7	SIP4-57	2.7	0.8	SIP4-51	3.0	0.8	SIP4-52	3.0	0.9
10 $\pm$ 1.0	2.0 $\pm$ 0.5	SIP4-105	4.0	0.7	SIP4-107	4.4	1.3	SIP4-101	4.6	1.3	SIP4-102	6.3	1.5
15 $\pm$ 1.0	3.0 $\pm$ 0.6	SIP4-155	5.5	1.0	SIP4-157	5.8	1.6	SIP4-151	5.8	1.6	SIP4-152	7.7	2.0
20 $\pm$ 1.0	4.0 $\pm$ 0.8	SIP4-205	6.4	1.2	SIP4-207	7.3	1.7	SIP4-201	7.5	1.7	SIP4-202	9.8	2.2
25 $\pm$ 1.25	5.0 $\pm$ 1.0	SIP4-255	8.0	1.3	SIP4-257	8.0	1.9	SIP4-251	8.0	1.9	SIP4-252	15.5	2.4
30 $\pm$ 1.5	6.0 $\pm$ 1.5	SIP4-305	9.0	1.6	SIP4-307	8.5	2.2	SIP4-301	8.5	2.2	SIP4-302	16.0	2.8
35 $\pm$ 1.75	7.0 $\pm$ 1.5	SIP4-355	10.0	1.7	SIP4-357	12.3	2.5	SIP4-351	12.7	2.5	SIP4-352	17.0	3.1
40 $\pm$ 2.0	8.0 $\pm$ 2.0	SIP4-405	11.0	1.9	SIP4-407	15.5	2.7	SIP4-401	15.5	2.8	SIP4-402	17.0	3.4
45 $\pm$ 2.25	9.0 $\pm$ 2.0	SIP4-455	12.0	2.0	SIP4-457	16.2	2.8	SIP4-451	16.5	3.0	SIP4-452	18.0	3.7
50 $\pm$ 2.5	10.0 $\pm$ 2.0	SIP4-505	14.0	2.1	SIP4-507	17.8	2.9	SIP4-501	18.0	3.1	SIP4-502	19.0	4.0
75 $\pm$ 3.75	15.0 $\pm$ 3.5	SIP4-755	23.0	2.2	SIP4-757	25.7	3.3	SIP4-751	26.0	3.4	-	-	-
100 $\pm$ 5.0	20.0 $\pm$ 4.0	SIP4-1005	33.0	2.4	SIP4-1007	34.0	3.6	SIP4-1001	34.0	3.7	-	-	-

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  $R_L = Z_0$

## 5-Tap SIP4 Style Schematic



## Dimensions in inches (mm)



Specifications subject to change without notice.

For other values & Custom Designs, contact factory.

SIP4 9901