

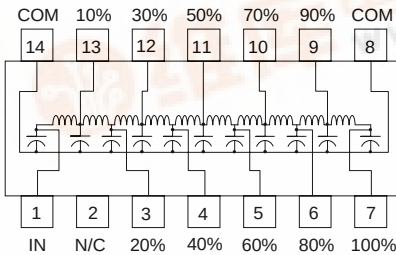
TZB-TYB-TUB Series 10-Tap High Performance Passive Delays

- 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 Ω
- Stable Delay vs. Temperature: 100 ppm/ $^{\circ}\text{C}$
- Operating Temperature Range -55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$

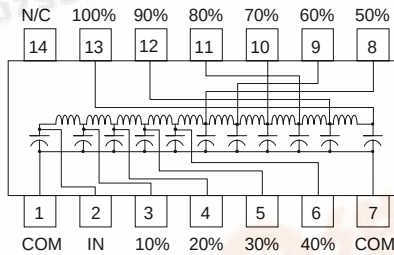
Operating Specifications - Passive Delay Lines

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 $^{\circ}\text{C}$

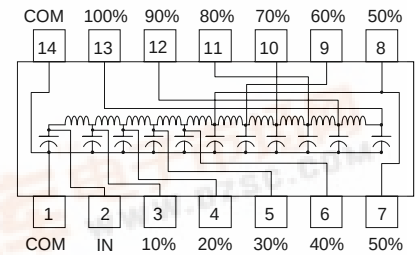
TZB Style Schematic
Most Popular Footprint



TYB Style Schematic
Substitute TYB for TZB in P/N



TUB Style Schematic
Substitute TUB for TZB in P/N



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

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	TZB1-5	2.0	0.7	TZB1-7	2.1	0.8	TZB1-10	2.2	0.8	TZB1-20	2.4	0.9
10 $\pm$ 0.7	1.0 $\pm$ 0.4	TZB6-5	3.2	0.7	TZB6-7	3.6	0.8	TZB6-10	3.8	0.8	TZB6-20	5.5	1.0
20 $\pm$ 1.0	2.0 $\pm$ 0.5	TZB12-5	4.0	0.7	TZB12-7	4.4	1.3	TZB12-10	4.6	1.5	TZB12-20	8.5	1.5
25 $\pm$ 1.25	2.5 $\pm$ 0.5	TZB18-5	4.5	0.9	TZB18-7	5.3	1.5	TZB18-10	5.5	1.7	TZB18-20	9.0	1.8
30 $\pm$ 1.5	3.0 $\pm$ 0.5	TZB24-5	5.5	1.0	TZB24-7	5.8	1.7	TZB24-10	5.8	2.0	TZB24-20	10.0	2.0
40 $\pm$ 2.0	4.0 $\pm$ 1.0	TZB30-5	7.0	1.2	TZB30-7	7.5	2.0	TZB30-10	7.5	2.2	TZB30-20	13.0	2.2
50 $\pm$ 2.5	5.0 $\pm$ 1.0	TZB36-5	8.5	1.3	TZB36-7	8.5	2.1	TZB36-10	8.5	2.3	TZB36-20	15.5	2.4
60 $\pm$ 3.0	6.0 $\pm$ 1.5	TZB42-5	10.5	1.6	TZB42-7	11.4	2.3	TZB42-10	11.5	2.5	TZB42-20	16.0	2.5
70 $\pm$ 3.5	7.0 $\pm$ 1.5	TZB48-5	11.0	1.7	TZB48-7	13.0	2.5	TZB48-10	13.0	2.8	TZB48-20	17.0	2.5
80 $\pm$ 4.0	8.0 $\pm$ 1.8	TZB54-5	12.0	1.9	TZB54-7	15.3	3.8	TZB54-10	15.5	3.0	TZB54-20	19.0	2.5
90 $\pm$ 4.5	9.0 $\pm$ 2.0	TZB60-5	14.0	2.0	TZB60-7	17.3	3.0	TZB60-10	17.5	3.1	TZB60-20	20.0	2.5
100 $\pm$ 5.0	10.0 $\pm$ 2.0	TZB66-5	18.0	2.1	TZB66-7	19.5	3.1	TZB66-10	20.0	3.2	TZB66-20	24.0	2.5
150 $\pm$ 7.50	15.0 $\pm$ 3.0	TZB72-5	24.0	2.2	TZB72-7	26.0	3.3	TZB72-10	26.0	3.5	TZB72-20	35.0	3.6
200 $\pm$ 10.0	20.0 $\pm$ 3.0	TZB78-5	34.0	2.4	TZB78-7	38.0	3.4	TZB78-10	39.0	3.5	TZB78-20	44.0	4.8
250 $\pm$ 12.5	25.0 $\pm$ 3.0	TZB84-5	41.0	2.4	TZB84-7	45.0	3.5	TZB84-10	46.0	4.0	TZB84-20	56.0	5.2
300 $\pm$ 15.0	30.0 $\pm$ 3.0	TZB90-5	48.0	2.5	TZB90-7	53.0	3.5	TZB90-10	54.0	4.2	TZB90-20	68.0	5.8
400 $\pm$ 20.0	40.0 $\pm$ 5.0	TZB94-5	65.0	2.8	TZB94-7	66.0	3.6	TZB94-10	67.0	4.5	—	—	—
500 $\pm$ 25.0	50.0 $\pm$ 5.0	TZB98-5	75.0	3.3	TZB98-7	84.0	3.7	TZB98-10	86.0	5.0	—	—	—

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 !!!

