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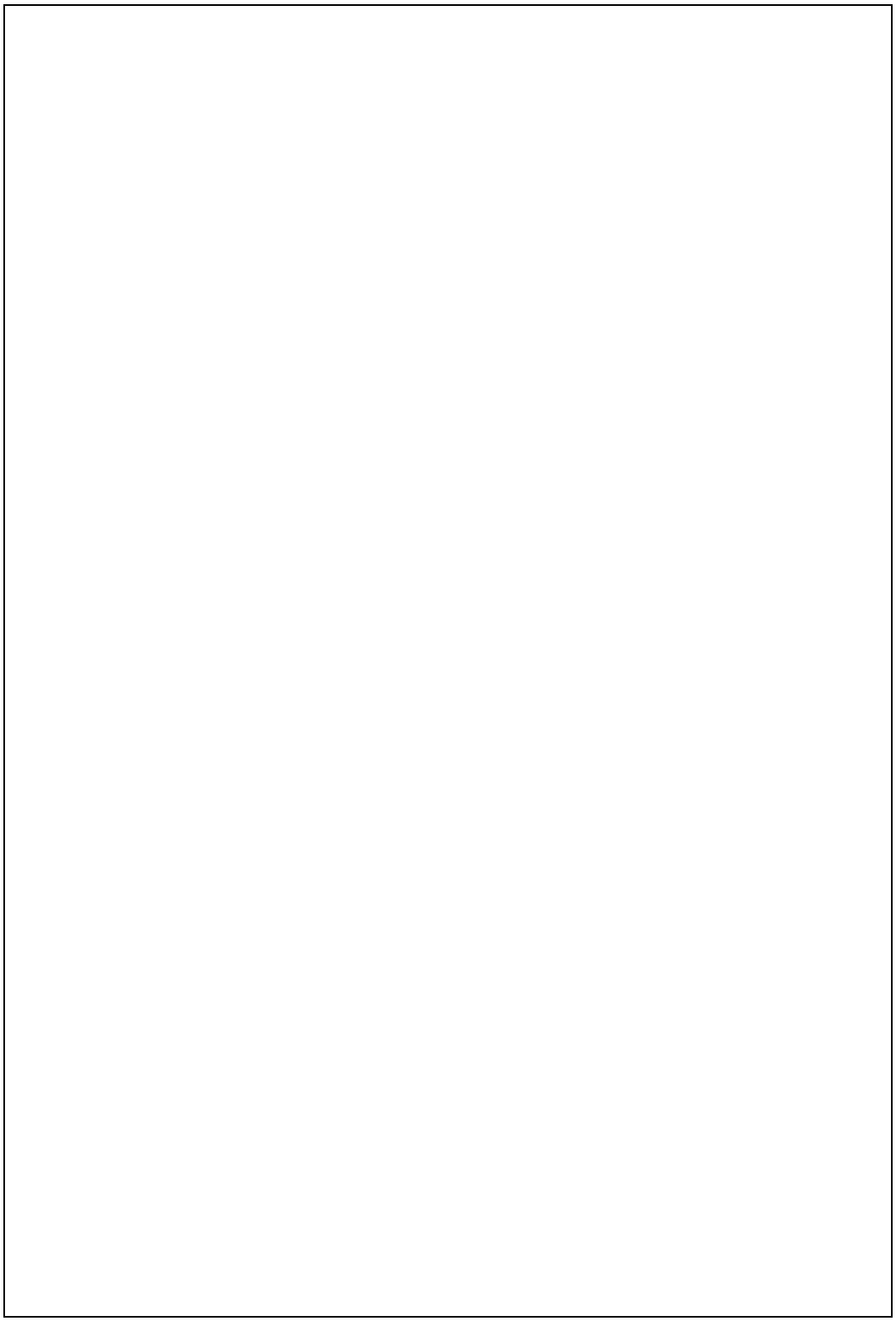


AC Electrical Characteristics

Over supply voltage and operating temperature ranges, unless otherwise specified

Symbol	Parameter	Test Conditions	Min	Typ (Note 4)	Max	Units
t_{PLHD}	Differential Propagation Delay LOW-to-HIGH	R_L = 100 Ω, C_L = 10 pF, See Figure 2 (Note 8), and Figure 3	0.6	1.1	1.7	ns
t_{PHLD}	Differential Propagation Delay HIGH-to-LOW		0.6	1.2	1.7	ns
t_{TLHD}	Differential Output Rise Time (20% to 80%)		0.4		1.2	ns
t_{THLD}	Differential Output Fall Time (80% to 20%)		0.4		1.2	ns
$t_{SK(P)}$	Pulse Skew $\|t_{PLH} - t_{PHL}\|$				0.4	ns
$t_{SK(LH)}$ $t_{SK(HL)}$	Channel-to-Channel Skew (Note 5)			0.05	0.3	ns
$t_{SK(PP)}$	Part-to-Part Skew (Note 6)				1.0	ns
f_{MAX}	Maximum Frequency (Note 7)	R_L = 100Ω, See Figure 6 (Note 8)	200	250		MHz
t_{ZHD}	Differential Output Enable Time from Z to HIGH	R_L = 100Ω, C_L = 10 pF, See Figure 4 (Note 8), and Figure 5		1.7	5.0	ns
t_{ZLD}	Differential Output Enable Time from Z to LOW			1.7	5.0	ns
t_{HZD}	Differential Output Disable Time from HIGH to Z			2.7	5.0	ns
t_{LZD}	Differential Output Disable Time from LOW to Z			2.7	5.0	ns
C_{IN}	Input Capacitance			4.2		pF
C_{OUT}	Output Capacitance			5.2		pF

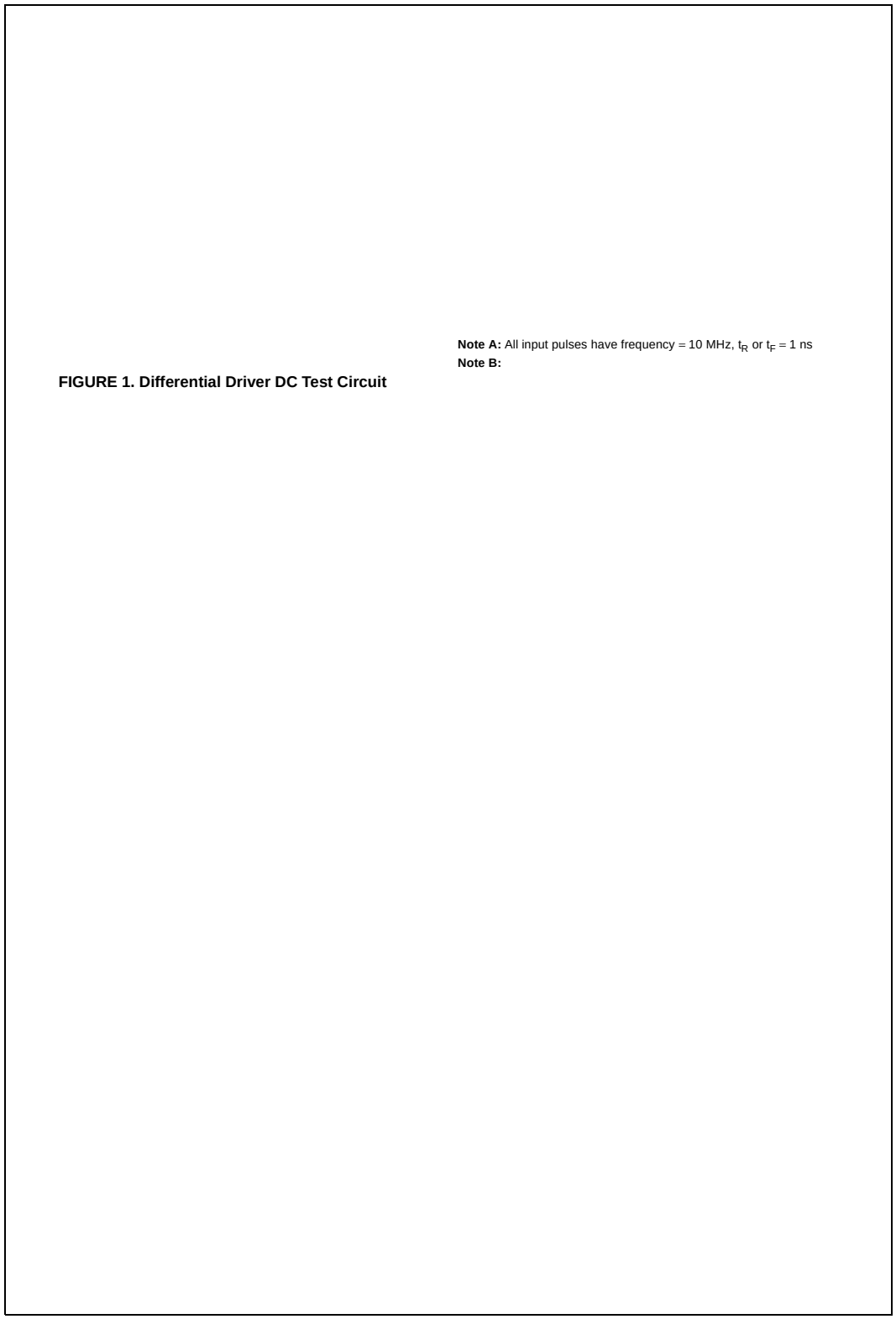
Note 4: All typical values are at T_A = 25°C and with V_{CC} = 3.3V.

Note 5: $t_{SK(LH)}$, $t_{SK(HL)}$ is the skew between specified outputs of a single device when the outputs have identical loads and are switching in the same direction.

Note 6: $t_{SK(PP)}$ is the magnitude of the difference in propagation delay times between any specified terminals of two devices switching in the same direction (either LOW-to-HIGH or HIGH-to-LOW) when both devices operate with the same supply voltage, same temperature, and have identical test circuits.

Note 7: f_{MAX} criteria: Input $t_R = t_F$ < 1ns, 0V to 3V, 50% Duty Cycle; Output V_{OD} > 250 mv, 45% to 55% Duty Cycle; all switching in phase channels.

Note 8: Test Circuits in Figures 2, 4, 6 are simplified representations of test fixture and DUT loading.



Note A: All input pulses have frequency = 10 MHz, t_R or t_F = 1 ns
Note B:

FIGURE 1. Differential Driver DC Test Circuit

DC / AC Typical Performance Curves

FIGURE 7. Output High Voltage vs. Power Supply Voltage

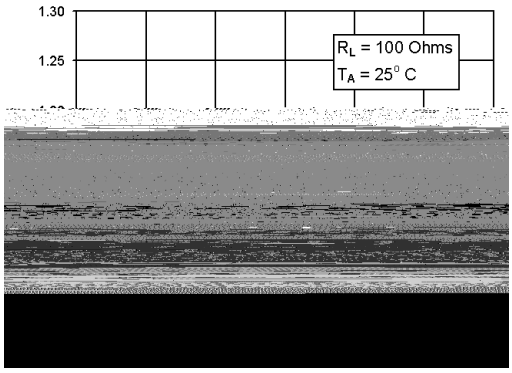


FIGURE 8. Output Low Voltage vs. Power Supply Voltage

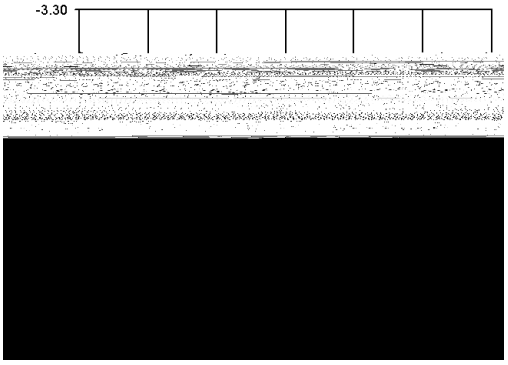


FIGURE 9. Output Short Circuit Current vs. Power Supply Voltage

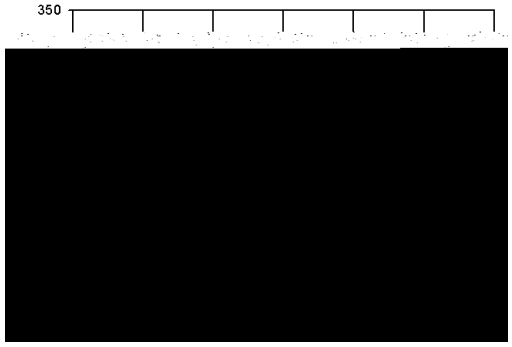


FIGURE 10. Differential Output Voltage vs. Power Supply Voltage

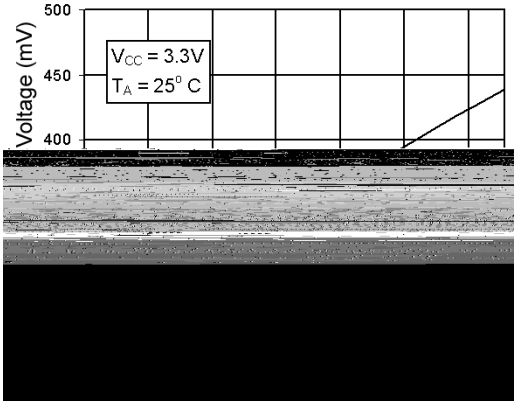


FIGURE 11. Differential Output Voltage vs. Load Resistor

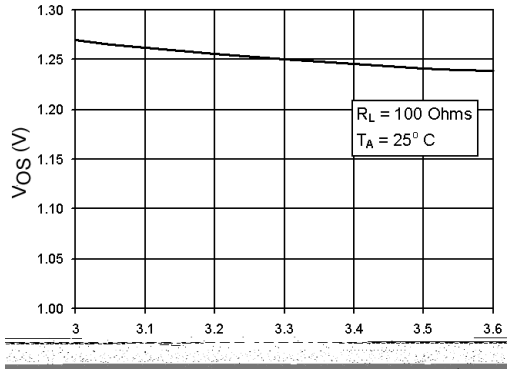


FIGURE 12. Offset Voltage vs. Power Supply Voltage

DC / AC Typical Performance Curves (Continued)

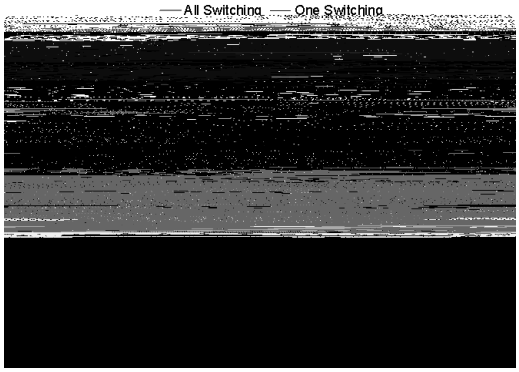


FIGURE 13. Power Supply Current vs. Frequency

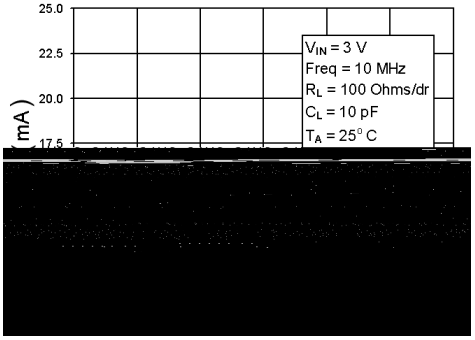


FIGURE 14. Power Supply Current vs. Power Supply Voltage

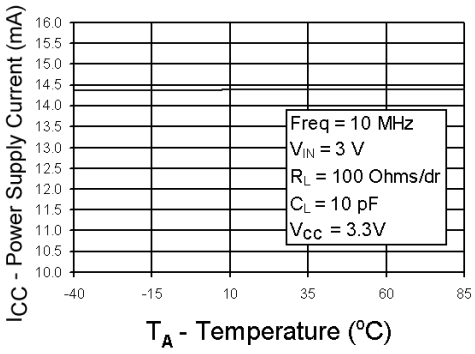


FIGURE 15. Power Supply Current vs. Ambient Temperature

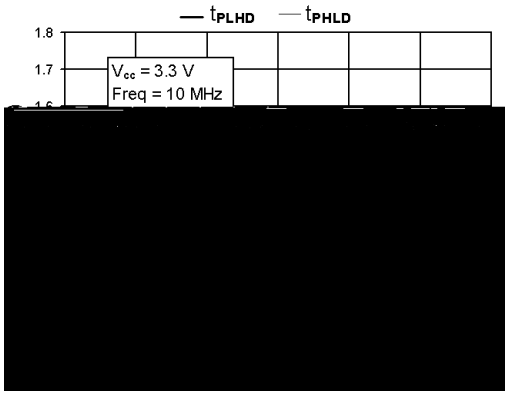


FIGURE 16. Differential Propagation Delay vs. Power Supply Voltage

FIGURE 17. Differential Propagation Delay vs. Ambient Temperature

FIGURE 18. Differential Pulse Skew (t_{PLH} - t_{PHL}) vs. Power Supply Voltage

DC / AC Typical Performance Curves (Continued)

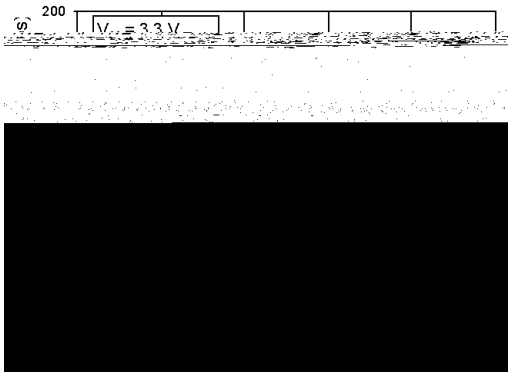


FIGURE 19. Differential Pulse Skew (t_{PLH} - t_{PHL}) vs. Ambient Temperature

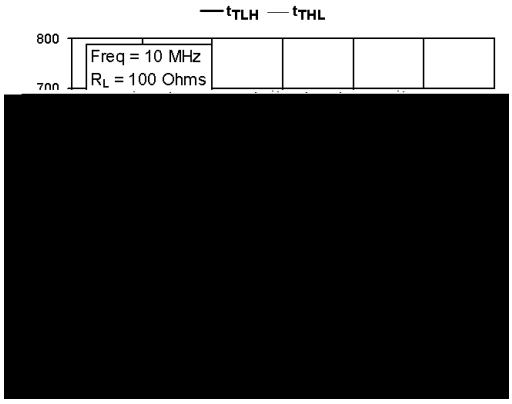


FIGURE 20. Transition Time vs. Power Supply Voltage

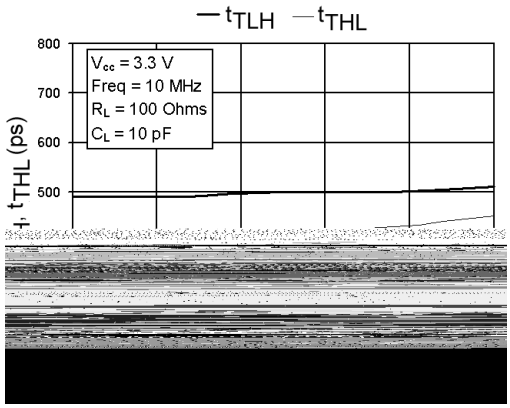
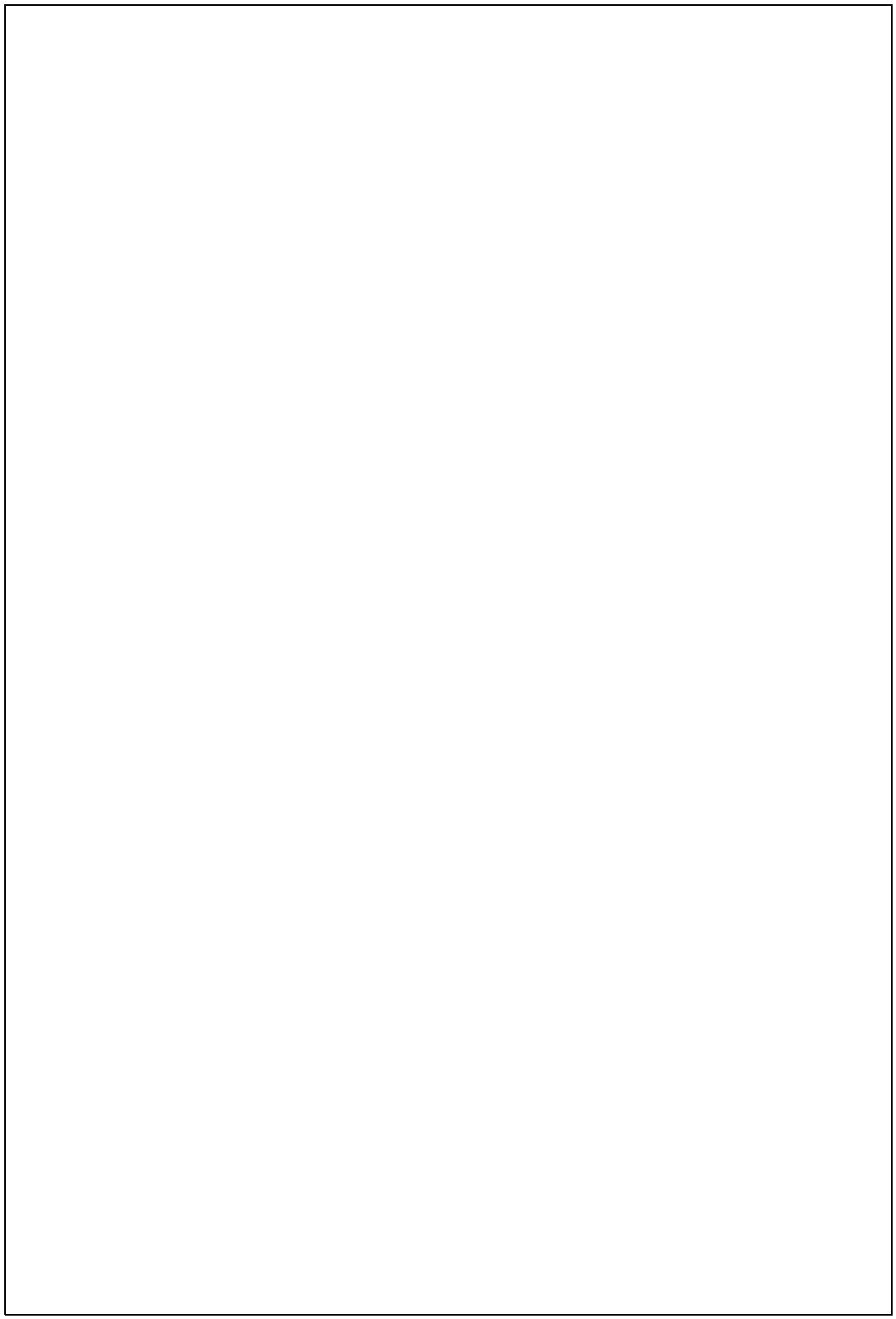
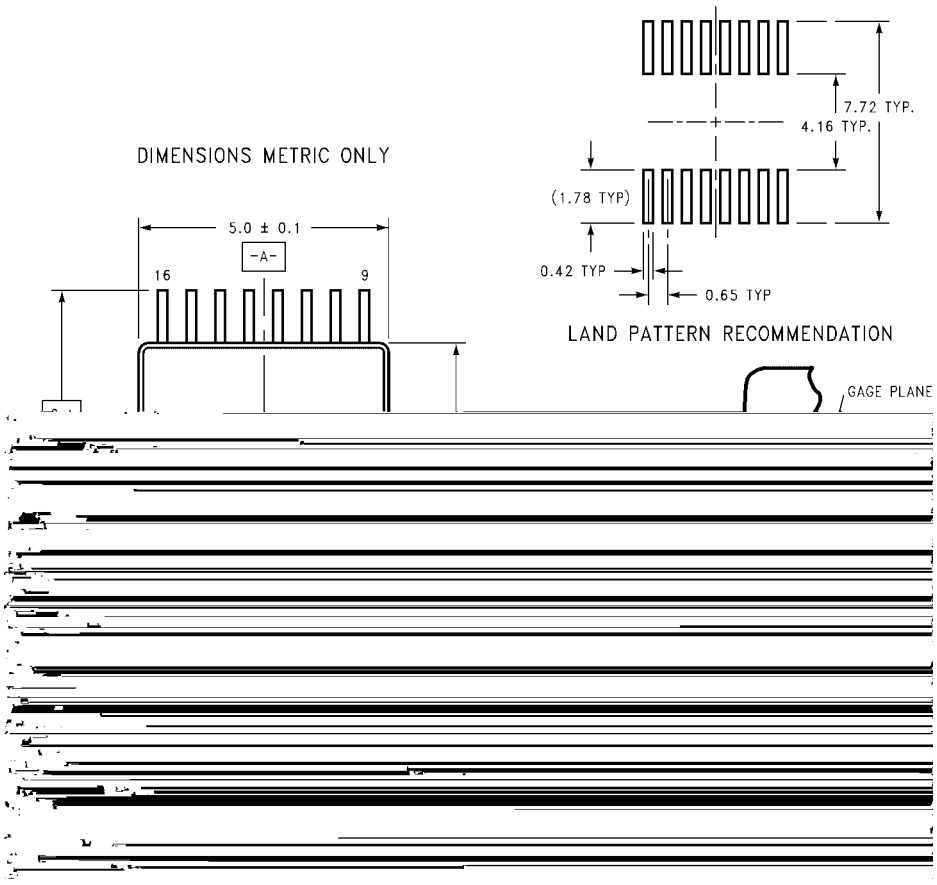


FIGURE 21. Transition Time vs. Ambient Temperature



Physical Dimensions inches (millimeters) unless otherwise noted (Continued)



16-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide
Package Number MTC16

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