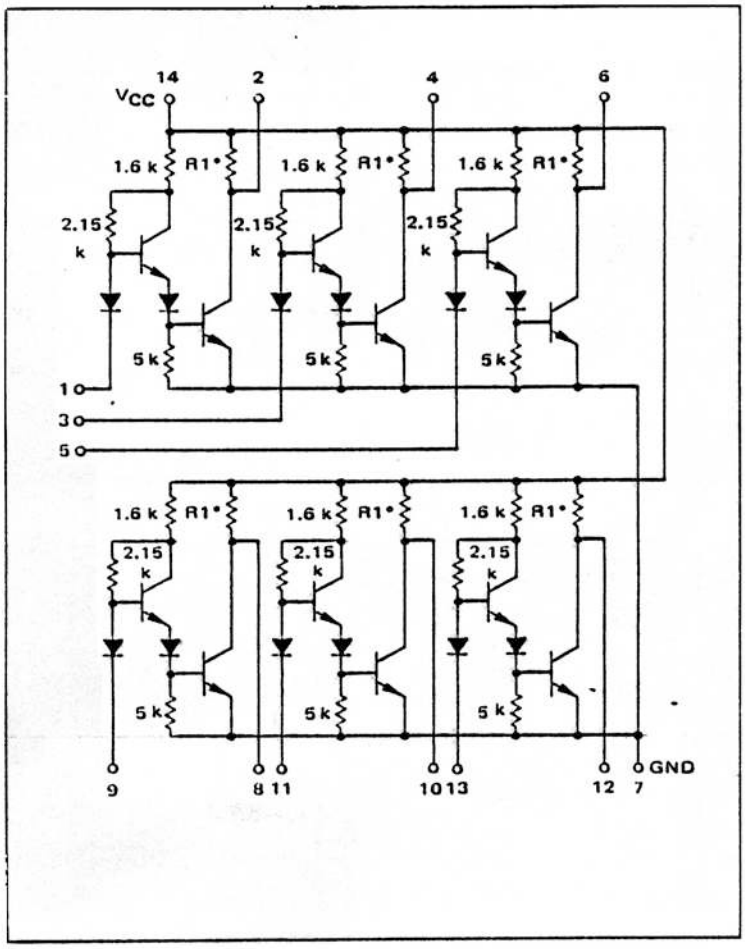
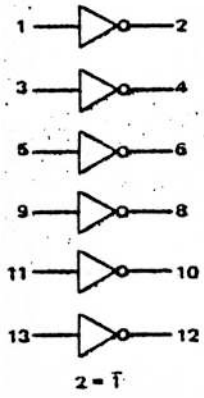
ML937
Hex Inverter

Legacy Device: *Motorola MC937*



This element consists of six inverter circuits.



Input Loading Factor = 1
Output Loading Factor:

937/ 837 = 7

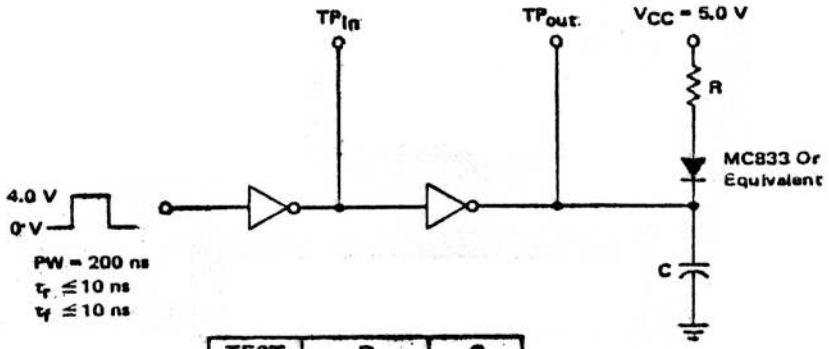
Total Power Dissipation

937/ 837 = 90 mW typ/pkg

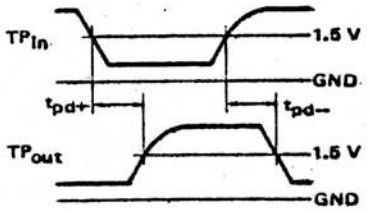
Propagation Delay Time

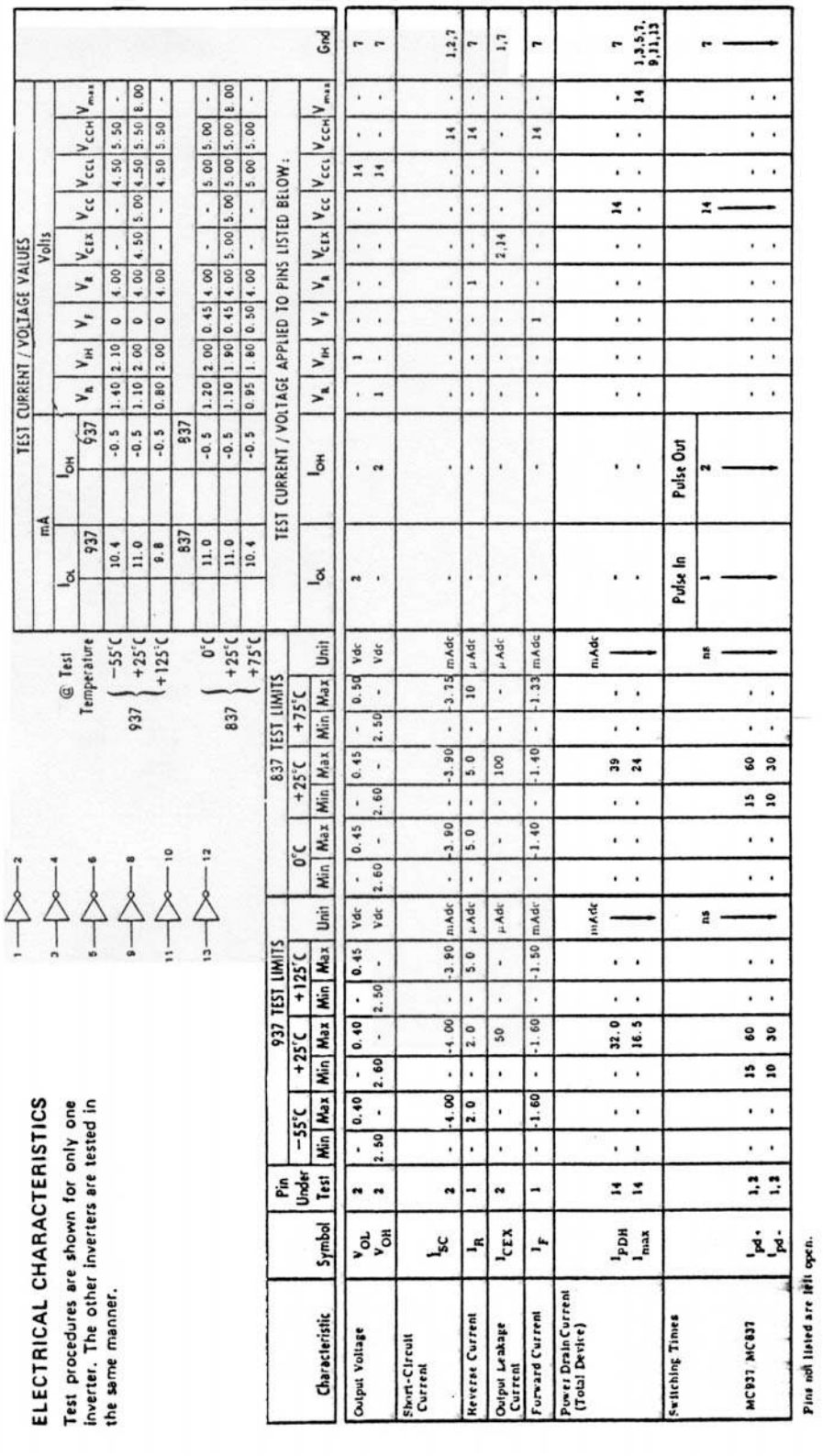
937/ 837 = 25 ns typ

SWITCHING TIME TEST CIRCUIT AND WAVEFORMS



TEST	R	C
t_{pd+}	3.9 k ohms	30 pF
t_{pd-}	400 ohms	50 pF





ELECTRICAL CHARACTERISTICS

Test procedures are shown for only one inverter. The other inverters are tested in the same manner.

Characteristic	Symbol	Pin Under Test	937 TEST LIMITS −55°C Min	−55°C Max	+25°C Min	+25°C Max	+125°C Min	+125°C Max	Unit	837 TEST LIMITS 0°C Min	0°C Max	+25°C Min	+25°C Max	+75°C Min	+75°C Max	Unit	TEST CURRENT / VOLTAGE APPLIED TO PINS LISTED BELOW: I_{OL}	I_{OH}	V_R	V_{IH}	V_F	V_R	V_{CEX}	V_{CC}	V_{CCL}	V_{CCH}	V_{max}	Gnd
Output Voltage	V_{OL}	2	-	0.40	-	0.40	-	0.45	Vdc	-	0.45	-	0.45	-	0.50	Vdc	2	-	-	1	-	-	-	-	14	-	-	7
	V_{OH}	2	2.50	-	2.60	-	2.50	-	Vdc	2.60	-	2.60	-	2.50	-	Vdc	-	2	1	-	-	-	-	-	14	-	-	7
Short-Circuit Current	I_{SC}	2	-	-4.00	-	-4.00	-	-3.90	mAdc	-	-3.90	-	-3.90	-	-3.75	mAdc	-	-	-	-	-	-	-	-	-	14	-	1,2,7
Reverse Current	I_R	1	-	2.0	-	2.0	-	5.0	μAdc	-	5.0	-	5.0	-	10	μAdc	-	-	-	-	-	1	-	-	-	14	-	7
Output Leakage Current	I_{CEX}	2	-	-	-	50	-	-	μAdc	-	-	-	100	-	-	μAdc	-	-	-	-	-	-	2,14	-	-	-	-	1,7
Forward Current	I_F	1	-	-1.60	-	-1.60	-	-1.50	mAdc	-	-1.40	-	-1.40	-	-1.33	mAdc	-	-	-	-	1	-	-	-	-	14	-	7
Power Drain Current (Total Device)	I_{PDH}	14	-	-	-	32.0	-	-	μAdc	-	-	-	39	-	-	mAdc	-	-	-	-	-	-	-	14	-	-	-	7
	I_{max}	14	-	-	-	16.5	-	-		-	-	-	24	-	-		-	-						-	-	-	14	1,3,5,7, 9,11,13
Switching Times									ns							ns	Pulse In	Pulse Out										7
MC937 MC837	t_{pd+}	1,3	-	-	15	60	-	-		-	-	15	60	-	-		1	2	-	-	-	-	-	14	-	-	-	
	t_{pd-}	1,3	-	-	10	30	-	-		-	-	10	30	-	-				-	-	-	-	-	-	-	-	-	

Pins not listed are left open.