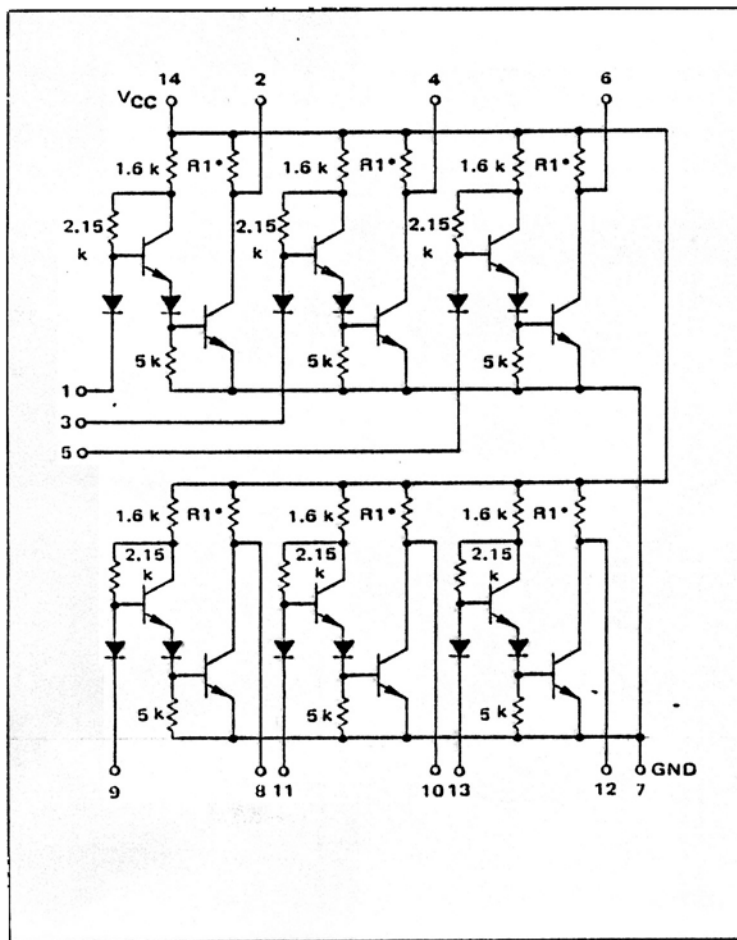
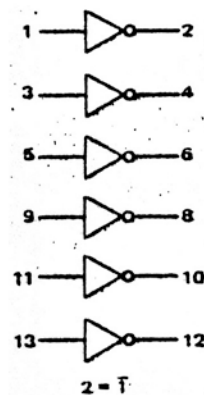


Legacy Device: Motorola MC937



This element consists of six inverter circuits.



Input Loading Factor = 1

Output Loading Factor:

937/ 837 = 7

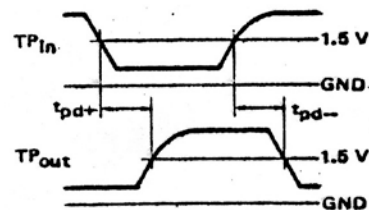
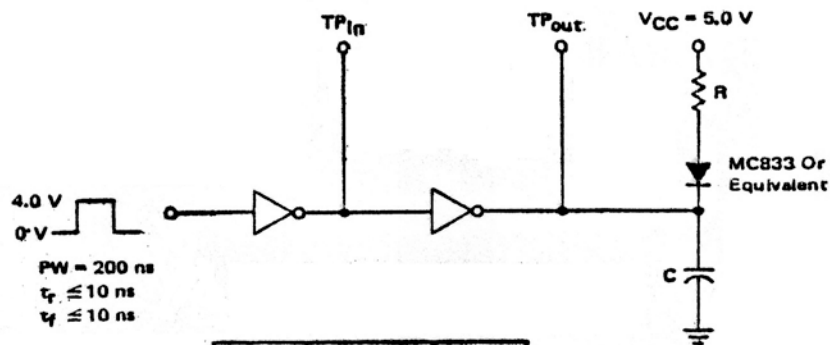
Total Power Dissipation

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						837 TEST LIMITS						TEST CURRENT / VOLTAGE VALUES											
			-55°C		+25°C		+125°C		0°C		+25°C		+75°C		mA				Volts							
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	I <sub>OL</sub>	I <sub>OH</sub>	V <sub>IL</sub>	V <sub>IH</sub>	V <sub>F</sub>	V <sub>G</sub>	V <sub>CEX</sub>	V <sub>CC</sub>	V <sub>CCL</sub>	V <sub>ECH</sub>	V <sub>MAX</sub>	
Output Voltage	V <sub>OL</sub> V <sub>OH</sub>	2 2	2.50	0.40	2.60	0.40	0.45	0.45	2.60	0.45	0.45	0.45	0.45	2.50	0.45	0.45	0.45	0.45	0.45	0.45	4.00	4.00	4.50	5.00	5.00	
Short-Circuit Current	I <sub>SC</sub>	2	-4.00	-4.00	-4.00	-3.90	mAdc	-3.90	-3.90	-3.90	-3.75	mAdc	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reverse Current	I <sub>R</sub>	1	2.0	2.0	2.0	5.0	μAdc	5.0	5.0	10	10	μAdc	-	-	-	-	-	-	-	-	-	-	-	-	-	
Output Leakage Current	I <sub>CEX</sub>	2	-	-	-	50	μAdc	50	100	-	-	μAdc	-	-	-	-	-	-	-	-	-	-	-	-	-	
Forward Current	I <sub>F</sub>	1	-1.60	-1.60	-1.60	-1.50	mAdc	-1.40	-1.40	-1.40	-1.33	mAdc	-	-	-	-	-	-	-	-	-	-	-	-	-	
Power Drain Current (Total Device)	I <sub>PDH</sub> I <sub>max</sub>	14 14	-	-	32.0	-	mAdc	-	-	39	-	mAdc	-	-	24	-	-	-	-	-	14	-	-	-	-	
Switching Times	t <sub>pd+</sub> t <sub>pd-</sub>	1,2 1,3	-	-	15	60	ns	-	-	15	60	ns	-	-	10	30	-	-	-	-	14	-	-	-	-	

Pin not listed are left open.

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