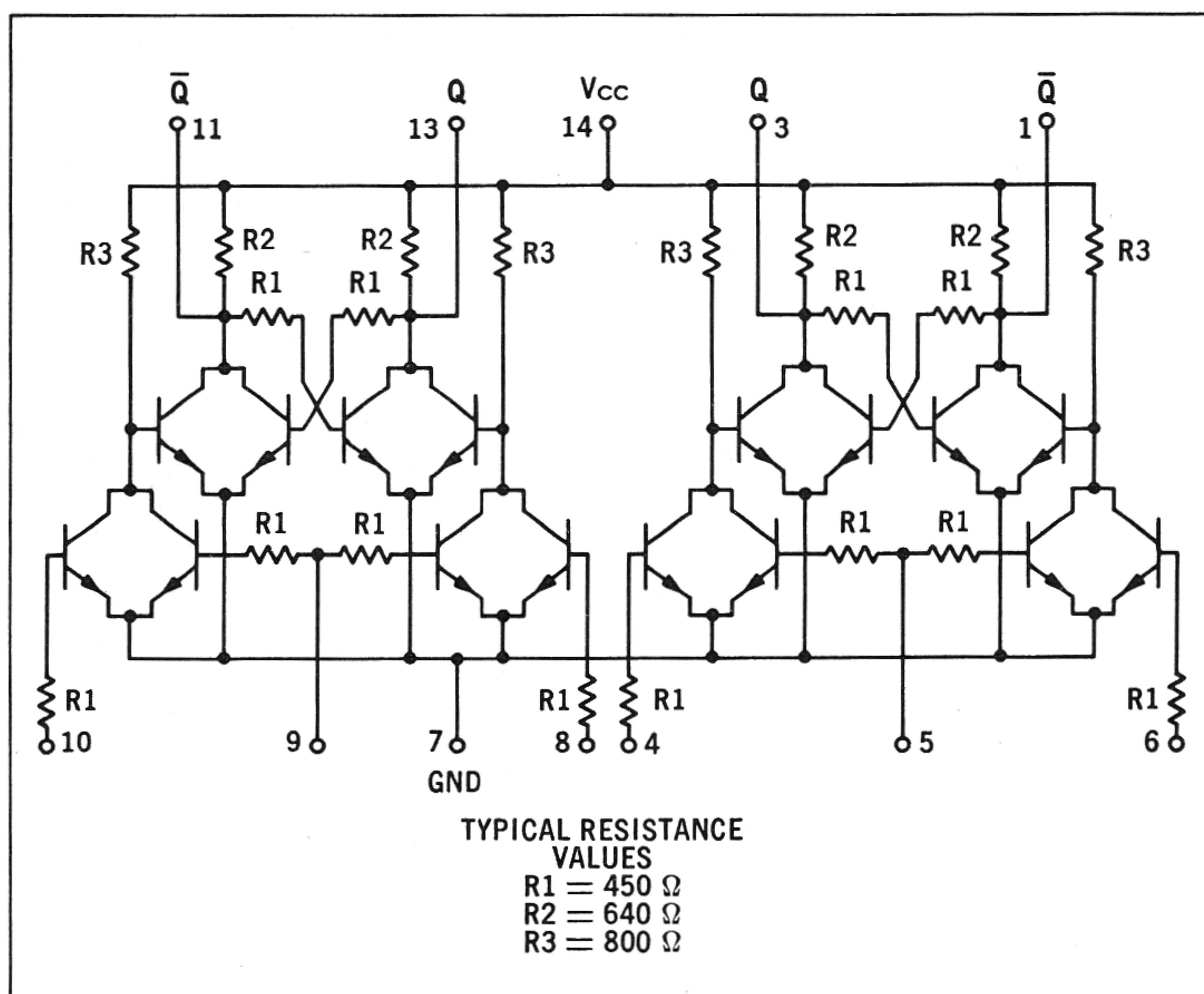


**DUAL HALF-SHIFT REGISTERS
(WITHOUT INVERTER)**
MRTL MC900/800 series

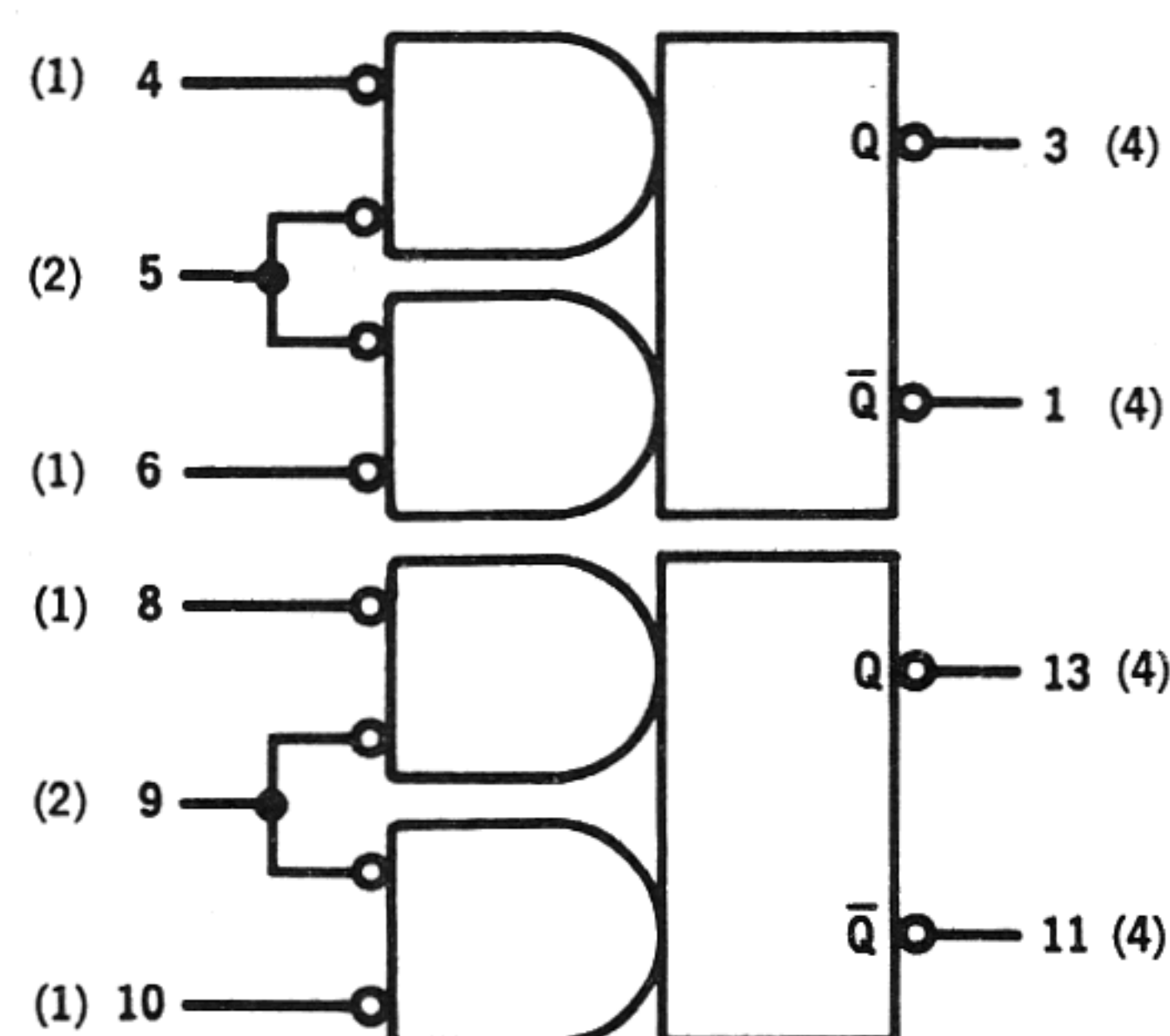
MC984 • MC884

Available in TO-86 flat package, add "F" suffix.

This bistable storage element consists of two half-shift registers in a single package. For example, information coming in on pins 4 and 6 will be transferred to pins 3 and 1 when the gating signal, pin 5, goes low. If all three inputs, 4, 5, and 6, are low, the outputs, 3 and 1, will both be low.



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$$3 = \bar{1} (4 + 5)$$

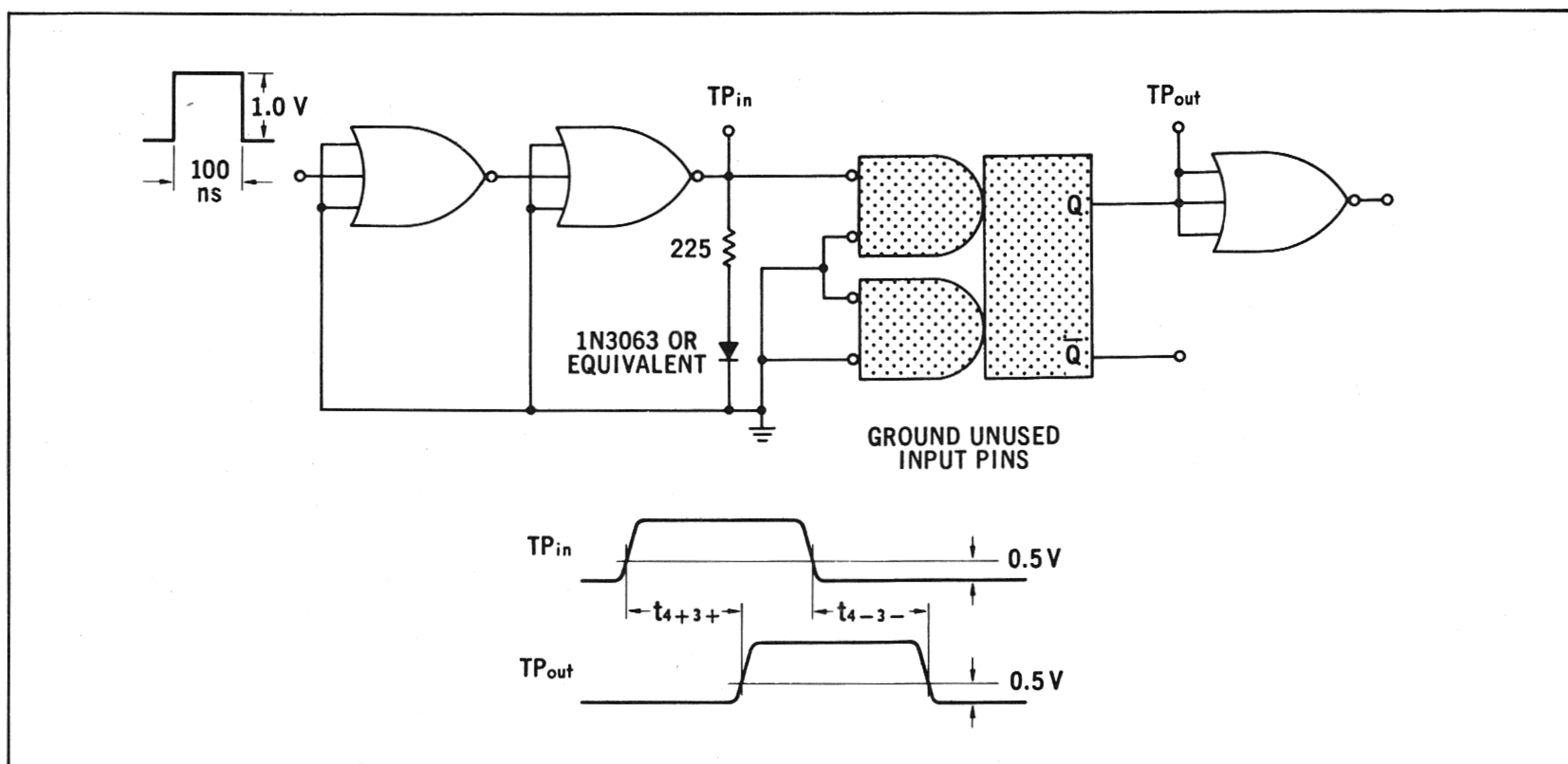
$$1 = \bar{3} (6 + 5)$$

$$t_{pd} = 22 \text{ ns typ}$$

$$P_D = 75 \text{ mW typ}$$

NUMBER IN PARENTHESIS INDICATES
MRTL LOADING FACTOR.

SWITCHING TIMES TEST CIRCUIT AND WAVEFORMS



MC984, MC884 (continued)

ELECTRICAL CHARACTERISTICS

Test procedures shown are for one half-shift register only.
The other half-shift register is tested in the same manner.

ELECTRICAL CHARACTERISTICS																					
Test procedures shown are for one half-shift register only. The other half-shift register is tested in the same manner.																					
Characteristic	Symbol	Pin Under Test	MC984						MC884						TEST VOLTAGE VALUES						
			Test Limits						Test Limits						APPLIED TO PINS LISTED BELOW:						
			-55°C		+25°C		+125°C		0°C		+25°C		+100°C		V _{in}	V _{on}	V _{BOT}	V _{off}	V _{CC}	Grd	
Input Current	I _{in}	4	-	495	-	435	-	470	-	504	-	450	-	450	μAdc	4	-	5	-	14	7
	2I _{in}	5	-	990	-	870	-	940	-	1008	-	900	-	900	↓	5	-	4, 6	-	↓	↓
	I _{in}	6	-	495	-	435	-	470	-	504	-	450	-	450	↓	6	-	5	-	↓	↓
Output Current	I _{A4}	1	1.98	-	2.19	-	1.88	-	2.02	-	2.05	-	1.80	-	mAdc	-	1, 5	-	-	14	3*, 7
		1	↓	-	↓	-	↓	-	↓	-	↓	-	↓	-	↓	-	1, 6	-	-	↓	7
		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3, 5	-	-	-	1*, 7
		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3, 4	-	-	-	7
Output Voltage	V _{out}	1	-	710	-	300	-	320	-	574	-	400	-	370	mVdc	-	3	5, 6	-	14	7
		3	-	710	-	300	-	320	-	574	-	400	-	370	mVdc	-	1	4, 5	-	14	7
Saturation Voltage	V _{CE}	1	-	200	-	210	-	280	-	290	-	260	-	340	mVdc	-	-	4, 5, 6	-	14	1*, 7
		1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	-	-	-	5, 6	↓	3, 7
		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4, 5, 6	↓	3*, 7
		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4, 5	↓	1, 7
Switching Time	t	4+3+	-	-	-	40	-	-	-	-	-	40	-	-	ns	Pulse In	Pulse Out	-	-	14	1, 7
		4-3-	-	-	-	40	-	-	-	-	-	40	-	-	ns	4	3	-	-	14	1, 7
			-	-	-	40	-	-	-	-	-	40	-	-	ns	4	3	-	-	14	1, 7

Ground input pins of half-shift register not under test. Other pins not listed are left open. *Momentary ground.