

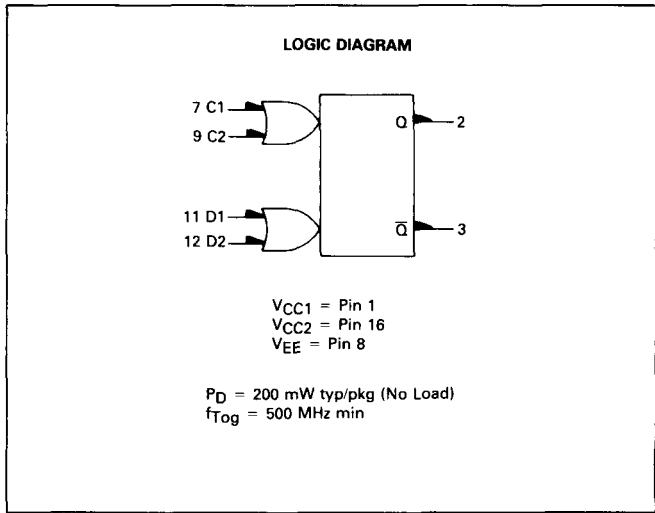
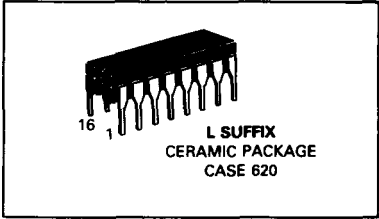


**MC1690**  
OBSOLETE  
USE MC12090

**ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	-30°C		+25°C		+85°C		Unit
		Min	Max	Min	Max	Min	Max	
Power Supply Drain Current	$I_E$	—	—	—	59	—	—	mAdc
Input Current Pins 7, 9 Pins 11, 12	$I_{inH}$	—	—	—	250 270	—	—	$\mu$ Adc
Switching Times				Min	Typ	Max		ns
Propagation Delay	$t_{pd}$	—	—	—	1.5	—	—	
Rise Time, Fall Time (10% to 90%)	$t^+, t^-$	—	—	—	1.3	—	—	ns
Setup Time	$t_{setup}$	—	—	—	0.3	—	—	ns
Hold Time	$t_{hold}$	—	—	—	0.3	—	—	
Toggle Frequency	$f_{Tog}$	500	—	500	540	—	500	MHz

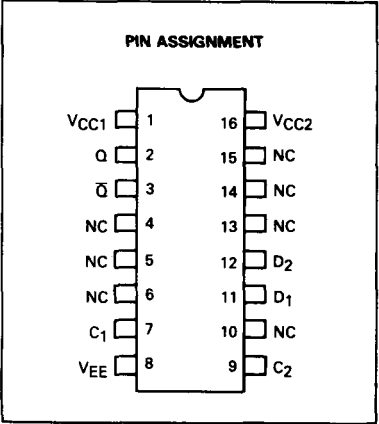
**UHF PRESCALER  
TYPE D FLIP-FLOP**



**TRUTH TABLE**

C	D	$Q_{n+1}$
L	$\phi$	$Q_n$
H	$\phi$	$Q_n$
	L	L
	H	H

C = C1 + C2  
D = D1 + D2  
 $\phi$  = Don't Care



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# MC1690

FIGURE 1 — TOGGLE FREQUENCY TEST CIRCUIT

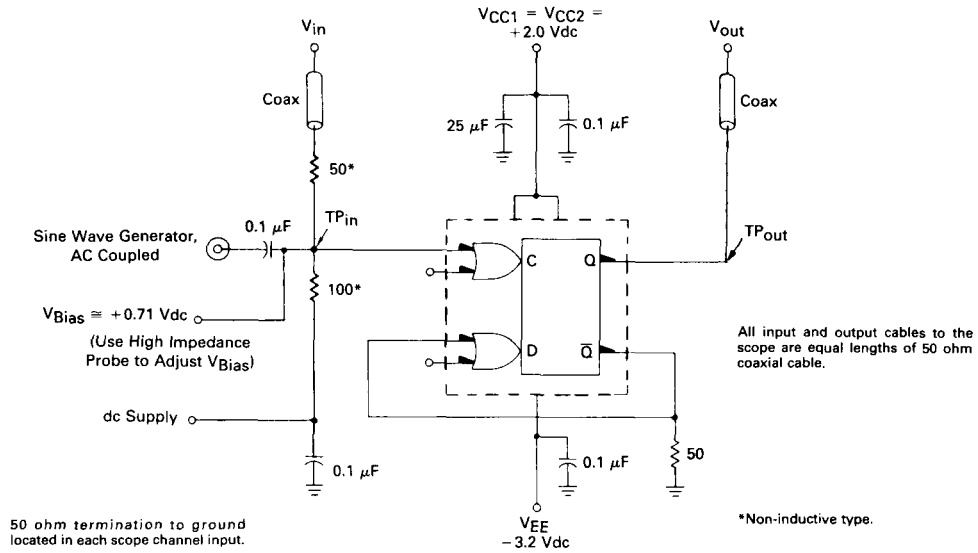


FIGURE 2 — TOGGLE FREQUENCY WAVEFORMS

