

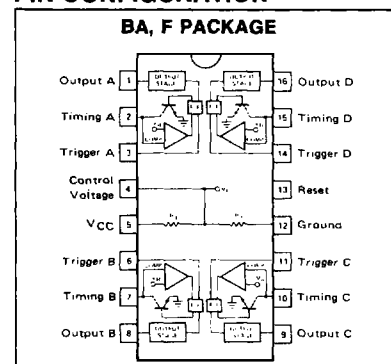
FEATURES

- 100mA OUTPUT CURRENT PER SECTION
- EDGE-TRIGGERED (NO COUPLING CAPACITOR)
- OUTPUT INDEPENDENT OF TRIGGER CONDITIONS
- WIDE SUPPLY VOLTAGE RANGE 4.5V TO 16V
- TIMER INTERVALS FROM MICRO-SECONDS TO HOURS

APPLICATIONS

SEQUENTIAL TIMING
TIME DELAY GENERATION
PRECISION TIMING
INDUSTRIAL CONTROLS
QUAD ONE-SHOT

PIN CONFIGURATION



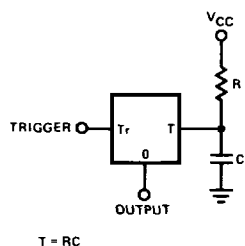
ELECTRICAL CHARACTERISTICS

$T_A = 25^\circ\text{C}$, $V_{CC} = +5\text{V}$ to $+15\text{V}$ (Unless Otherwise Noted).

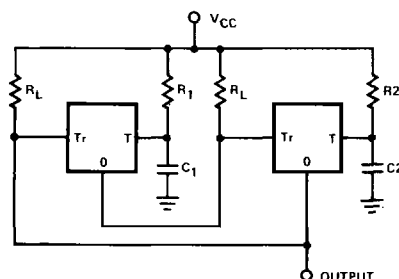
PARAMETER	TEST CONDITIONS	LIMITS			UNIT
		MIN	TYP	MAX	
Supply Voltage		4.5		16	V
Supply Current	$V_{CC} = 5\text{V}$, $R_L = \infty$		18	27	mA
	$V_{CC} = 15\text{V}$, $R_L = \infty$		22	32	mA
Timing Accuracy	$R = 2\text{k}$ to 100k $C = 1\mu\text{F}$				%
Initial Accuracy			1	4	%
Drift With Temperature			150		ppm/ $^\circ\text{C}$
Drift With Supply Voltage			0.03	0.1	%/V
Match Between Sections			0.2	0.5	%
Trigger Voltage		0.8	1.6	2.4	V
Trigger Current					nA
Logical "1"			10	100	nA
Logical "0"			50	100	μA
Threshold Voltage			0.63		$\times V_{CC}$
Threshold Leakage			10	100	nA
Output Voltage (553)	$I_L = 10\text{mA}$		0.1	0.2	V
	$I_L = 100\text{mA}$		1.0	1.5	V
Output Voltage (554)	$I_L = 10\text{mA}$, $V_{CC} = 15\text{V}$	13	14		V
	$I_L = 100\text{mA}$, $V_{CC} = 15\text{V}$	12.5	13.5		V
Output Leakage			10	100	nA
Propagation Delay			1.0		μs
Risetime of Output	$I_L = 100\text{mA}$		100		ns
Falltime of Output	$I_L = 100\text{mA}$		100		ns

TYPICAL APPLICATIONS

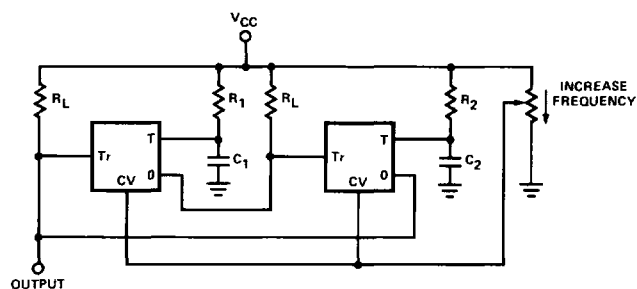
MONOSTABLE OPERATION (ONE SHOT)



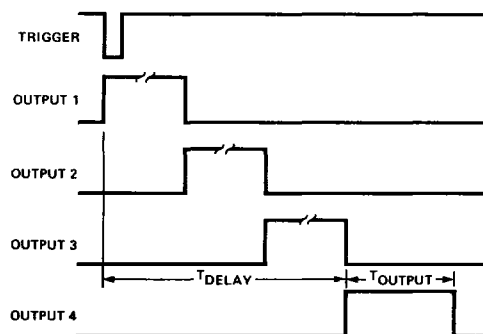
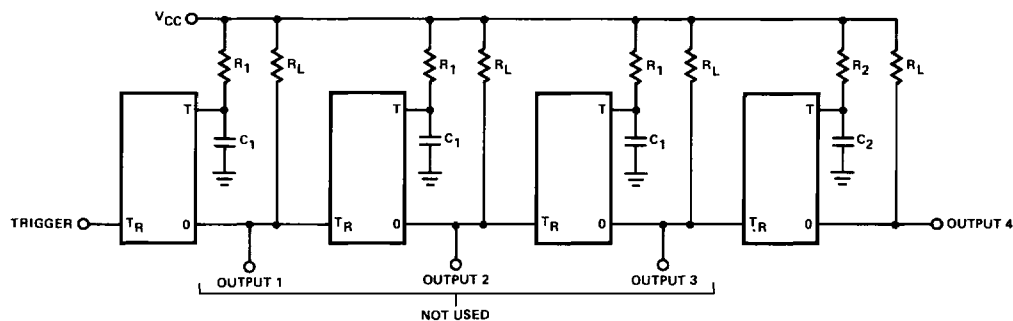
ASTABLE OPERATION (OSCILLATOR)



VARIABLE FREQUENCY OSCILLATOR WITH FIXED DUTY CYCLE



LONG-TIME DELAY



$$T_{DELAY} = 3(R_1C_1)$$

$$T_{OUT} = R_2C_2$$

TYPICAL APPLICATIONS (CONT'D)

