


REL-LABS INC.
Hybrid Microelectronic Manufacturing
RL0009
T-52-19

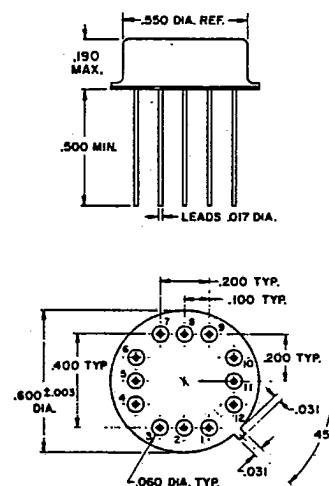
 30 Midland Avenue
 Hicksville, N.Y. 11801
 (516) 935-7272
 FAX # (516) 935-8568

DUAL PHASE MTOS CLOCK DRIVER
DESCRIPTION

The RL0009/0009C is designed to operate in conjunction with standard TTL/DTL Line Drivers to provide fixed width clock pulses for multiple MTOS shift registers. Two external capacitors set the pulse width, adjustable from <100 nS to >300 nS. Other features include:

- High output swings: 30 volts
- High output current: 500mA
- High rep rate: 2 MHz
- Low standby power:

PARAMETER	MAXIMUM RATING	MINIMUM RATING
V2 Supply Voltage: Differential (Pin 3 to Pin 5) or (Pin 7 to Pin 5)	40V	
V3 Supply Voltage: Differential (Pin 11 to Pin 5)	30V	
Input Current: (Pin 2, 4, 6 or 8)	±75mA	
Peak Output Current	±500mA	
Power Dissipation	1.8W	
Storage Temperature	+175°C	-65°C
Operating Temperature	RL0009 +125°C RL0009C + 70°	-55°C 0°C

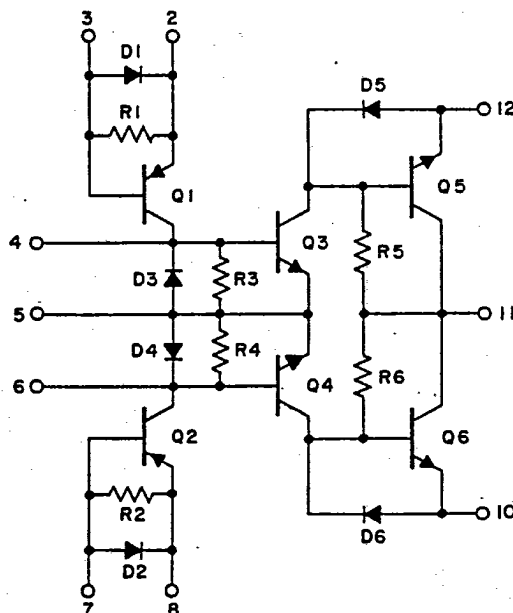
PACKAGE OUTLINE DIAGRAM


Note: All dimensions in inches.

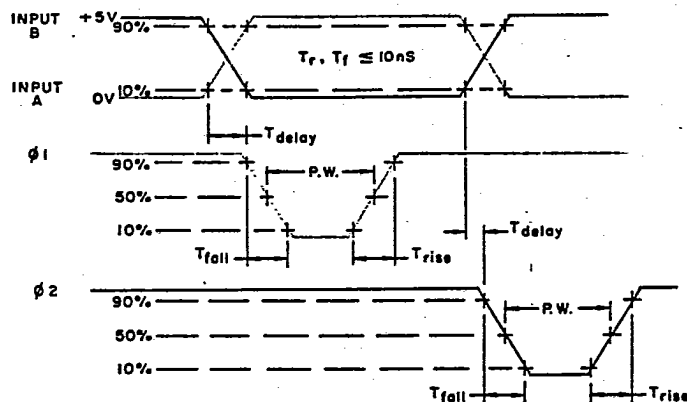
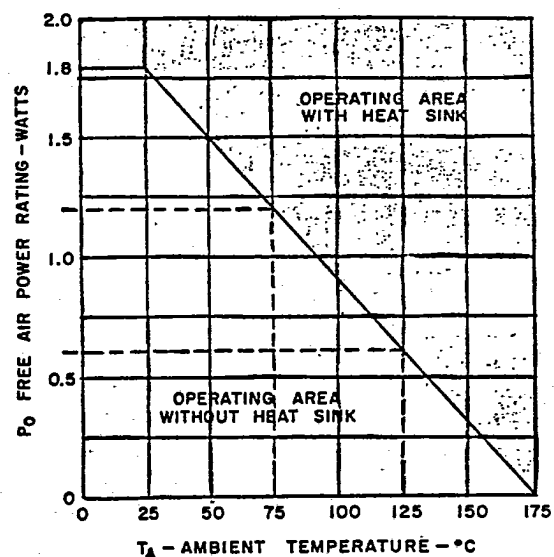
CIRCUIT PERFORMANCE RATINGS
 $V_2 = -20V$, $V_1 = 0V$,

CHARACTERISTIC	MIN	TYP	MAX	UNITS
T delay ($C_{IN} = .003\mu F$, $C_L = .001\mu F$)		10		nS
T fall ($C_{IN} = .003\mu F$, $C_L = .001\mu F$)		25		nS
T rise ($C_{IN} = .003\mu F$, $C_L = .001\mu F$)		80		nS
Pulse Width (50% to 50%)	100	200	300	nS
T delay ($C_{IN} = 600 pF$, $C_L = 200 pF$)		10		nS
T fall ($C_{IN} = 600 pF$, $C_L = 200 pF$)		10		nS
T rise ($C_{IN} = 600 pF$, $C_L = 200 pF$)		30		nS
Pulse Width (50% to 50%)	40	70	120	nS

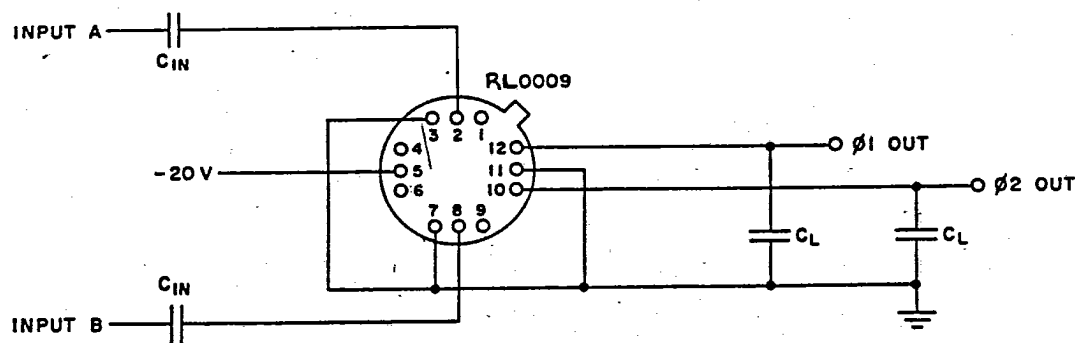
Note: Min & Max ratings apply for
 $-55^\circ C_A$ to $125^\circ C_A$ /RL0009
 $0^\circ C_A$ to $70^\circ C_A$ /RL0009C
 Typical Ratings are for
 $T_A = 25^\circ C$

SCHEMATIC


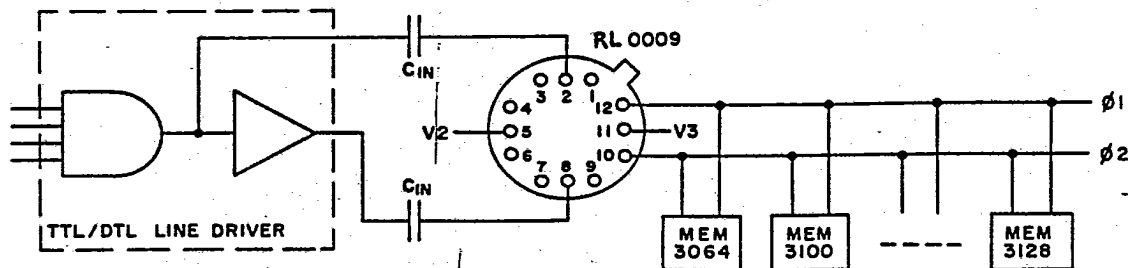
TIMING RELATIONSHIPS

PACKAGE POWER DERATING CURVE
See Note 1

TEST CONFIGURATION



APPLICATIONS



Note 1: Transient power is given by $P = 2FC_L (V_2 - V_1)^2$ W where F = repetition Rate, C_L = Load Capacitance, $(V_2 - V_1)$ = Output Swing