

SCL4017B

DECADE COUNTER/DIVIDER

STATIC CHARACTERISTICS: ($V_{SS} = 0\text{ V}$)

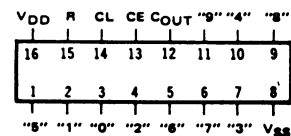
PARAMETER	CONDITIONS	V_{DD} (Vdc)	T_{LOW}^* MIN	T_{LOW}^* MAX	+ 25°C TYP	MAX	T_{HIGH}^{**} MIN	T_{HIGH}^{**} MAX	UNIT
QUIESCENT DEVICE CURRENT I_{DD}	$V_{IN} = V_{SS}$ OR V_{DD}	5		5		5		150	μAdc
		10		10		10		300	
		15		20		20		600	

Note: * $T_{LOW} = -55^\circ\text{C}$ for C / H devices, -40°C for E / S devices, ** $T_{HIGH} = +125^\circ\text{C}$ for C / H devices, $+85^\circ\text{C}$ for E / S devices.

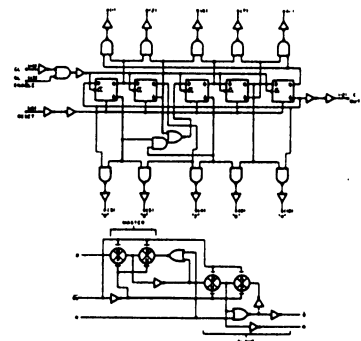
DYNAMIC CHARACTERISTICS: ($C_L = 50\text{pF}$, $T_A = 25^\circ\text{C}$)

PARAMETER	V _{DD} (V _{dc})	MINIMUM	TYPICAL	MAXIMUM	UNIT
PROPAGATION DELAY TIME t _{PLH} , t _{PHL} (TO DECODED OUTPUTS)	5		350	700	ns
	10		200	400	
	15		150	300	
PROPAGATION DELAY TIME t _{PLH} , t _{PHL} (TO CARRY OUTPUT)	5		325	650	ns
	10		175	350	
	15		125	250	
OUTPUT TRANSITION TIME t _{TLH} , t _{THL} (DECODED & CARRY OUTPUTS)	5		100	200	ns
	10		50	100	
	15		40	80	
CLOCK PULSE WIDTH MINIMUM PW _{CL}	5		100	200	ns
	10		40	70	
	15		30	60	
MAXIMUM CLOCK FREQUENCY f _{CL}	5	2.5	5		MHz
	10	7	12		
	15	9.3	16		
MAXIMUM CLOCK OR ENABLE RISE & FALL TIME t _{rCL} t _{fCL}	5 to 15	NO LIMIT			
MINIMUM ENABLE SETUP TIME t _{set}	5		100	300	ns
	10		50	100	
	15		35	70	
MINIMUM ENABLE REMOVAL TIME t _{rem}	5		250	500	ns
	10		100	200	
	15		75	150	
RESET PROPAGATION DELAY TIME t _{PLH} , t _{PHL} (DECODED & CARRY OUTPUTS)	5		325	650	ns
	10		175	350	
	15		125	250	
RESET PULSE WIDTH MINIMUM PW _R	5		150	300	ns
	10		75	150	
	15		60	120	
RESET REMOVAL TIME t _{rem}	5		250	500	ns
	10		100	200	
	15		80	160	

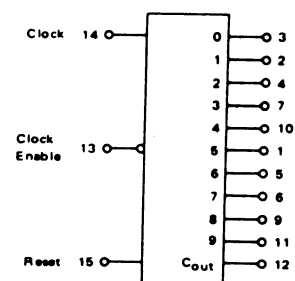
CONNECT DIAGRAM



LOGIC DIAGRAM



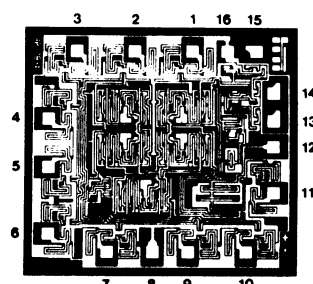
BLOCK DIAGRAM



DIE DRAWING

SCL4017B

83 x 76 mils



Note: Refer to "SCL4000B SERIES FAMILY SPECIFICATIONS" for remaining Dynamic and Static Characteristics, and, for recommended and maximum operating conditions.