

**SCL4022B**

OCTAL COUNTER/DIVIDER

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

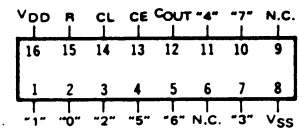
PARAMETER	CONDITIONS	$V_{DD}$ (Vdc)	$T_{LOW}^*$		+25°C			$T_{HIGH}^{**}$		UNIT
			MIN	MAX	MIN	TYP	MAX	MIN	MAX	
QUIESCENT DEVICE CURRENT $I_{DD}$	$V_{IN} = V_{SS}$ OR $V_{DD}$	5		5		0.05	5		150	$\mu A_{dc}$
		10		10		0.1	10		300	
		15		15		0.2	20		600	

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

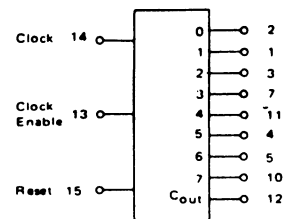
**DYNAMIC CHARACTERISTICS: (  $C_L = 50pF, T_A = 25°C$  )**

PARAMETER	$V_{DD}$ Vdc	MINIMUM	TYPICAL	MAXIMUM	UNIT
PROPAGATION DELAY TIME $t_{PLH}, t_{PHL}$ (TO DECODED OUTPUTS)	5		600	1200	ns
	10		240	480	
	15		180	360	
PROPAGATION DELAY TIME $t_{PLH}, t_{PHL}$ (TO CARRY OUTPUT)	5		500	1000	ns
	10		200	400	
	15		150	300	
OUTPUT TRANSITION TIME $t_{TLH}, t_{THL}$ (DECODED OUTPUTS)	5		250	500	ns
	10		125	250	
	15		90	180	
OUTPUT TRANSITION TIME $t_{TLH}, t_{THL}$ (CARRY OUTPUT)	5		180	360	ns
	10		90	180	
	15		65	130	
CLOCK PULSE WIDTH MINIMUM $PW_{CL}$	5		200	400	ns
	10		100	200	
	15		80	160	
CLOCK FREQUENCY MAXIMUM $f_{CL}$	5	1.25	2.5		MHz
	10	2.5	5		
	15	3	6		
CLOCK OR ENABLE RISE & FALL TIME MAXIMUM $t_{rCL}, t_{fCL}$	5	15			$\mu s$
	10	15			
	15	5			
ENABLE SETUP TIME MINIMUM $t_{set}$	5		175	350	ns
	10		75	150	
	15		55	110	
ENABLE REMOVAL TIME MINIMUM $t_{rem}$	5		250	500	ns
	10		100	200	
	15		75	150	

**CONNECT DIAGRAM**



**BLOCK DIAGRAM**



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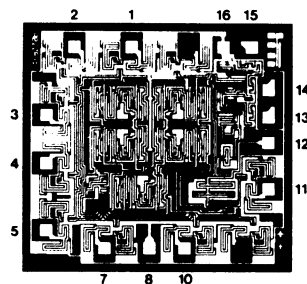
OCTAL COUNTER/DIVIDER

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

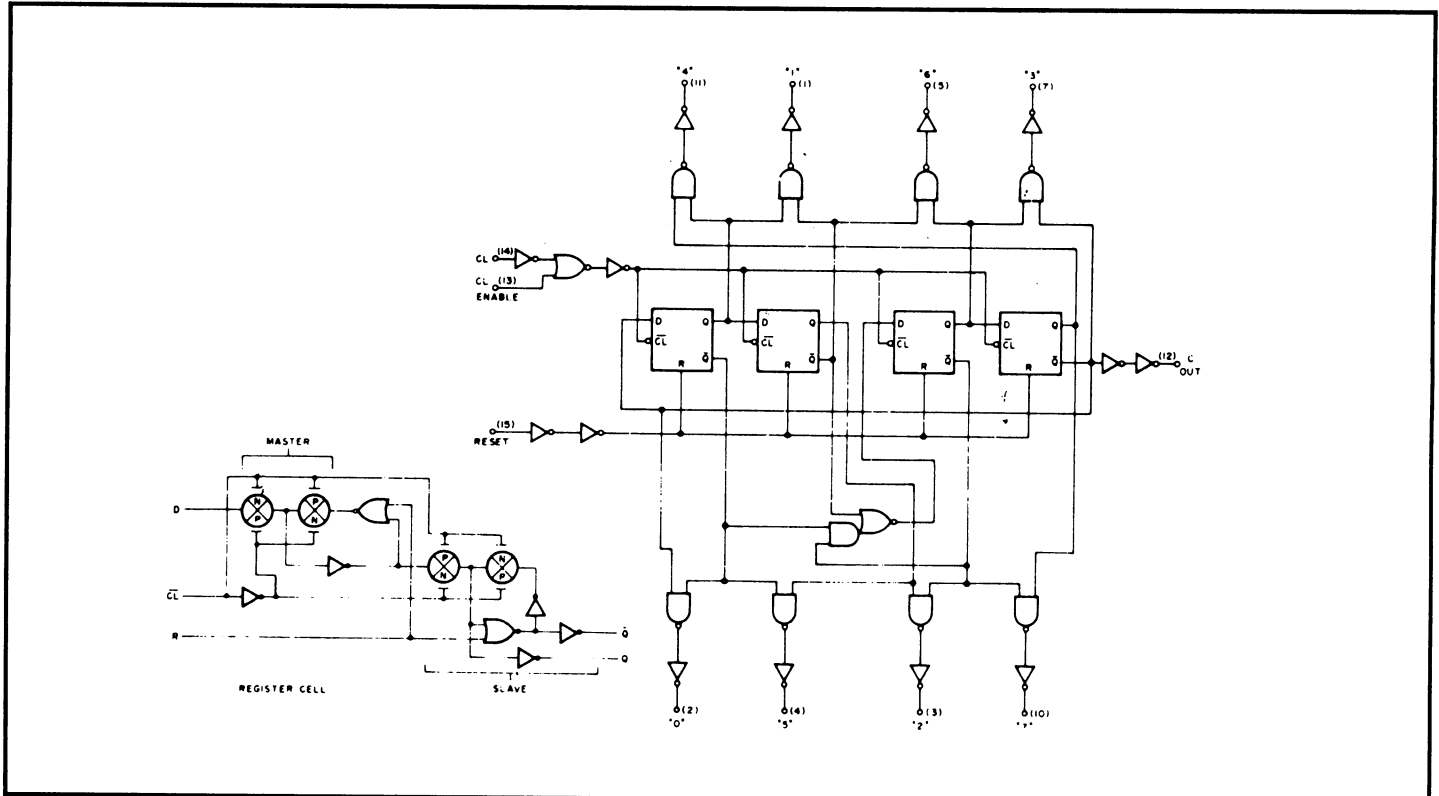
PARAMETER	$V_{DD}$ $V_{dc}$	MINIMUM	TYPICAL	MAXIMUM	UNIT
RESET PROPAGATION	5		500	1000	ns
DELAY TIME $t_{PLH}$ $t_{PHL}$	10		200	400	
(TO DECODED OUTPUTS)	15		140	280	
PROPAGATION	5		400	800	ns
DELAY TIME $t_{PLH}$	10		150	300	
(TO CARRY OUTPUT)	15		110	220	
RESET PULSE WIDTH	5		150	300	ns
MINIMUM $PW_R$	10		75	150	
	15		60	120	
RESET REMOVAL TIME	5		250	500	ns
$t_{rem}$	10		100	200	
	15		80	160	

**DIE DRAWING**

SCL4022B  
83 x 76 mils



**LOGIC DIAGRAM**



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