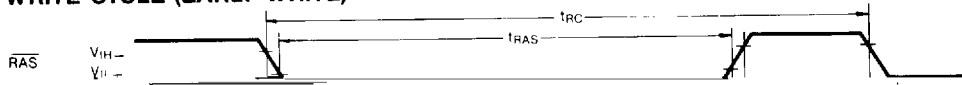


yn followed by any 8 DAC equals before error the native value if 1 1 (min) and 1 1

**TIMING DIAGRAMS** (Continued)

**WRITE CYCLE (EARLY WRITE)**



# SN54BCT29827B, SN74BCT29827B 10-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS

SCBS008C - APRIL 1987 - REVISED NOVEMBER 1993

**electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)**

PARAMETER	TEST CONDITIONS		SN54BCT29827B		SN74BCT29827B		UNIT		
			MIN	TYP†	MAX	MIN		TYP†	MAX
$V_{IK}$	$V_{CC} = 4.5 V$ ,	$I_I = -18 mA$			-1.2		-1.2	V	
$V_{OH}$	$V_{CC} = 4.5 V$	$I_{OH} = -15 mA$	2	3.2	2.4	3.3		V	
		$I_{OH} = -24 mA$			2	3.1			
	$V_{CC} = 4.75 V$ ,	$I_{OH} = -3 mA$			2.7				
$V_{OL}$	$V_{CC} = 4.5 V$	$I_{OL} = 24 mA$		0.38	0.55			V	
		$I_{OL} = 48 mA$				0.42	0.5		
$I_I$	$V_{CC} = 5.5 V$ ,	$V_I = 7 V$			0.1		0.1	mA	
$I_{IH}$	$V_{CC} = 5.5 V$ ,	$V_I = 2.7 V$			20		20	$\mu A$	
$I_{IL}$	$V_{CC} = 5.5 V$ ,	$V_I = 0.5 V$			-0.2		-0.2	mA	
$I_{OS}^\ddagger$	$V_{CC} = 5.5 V$ ,	$V_O = 0$	-75		-250	-75	-250	mA	
$I_{OZH}$	$V_{CC} = 5.5 V$ ,	$V_O = 2.7 V$			20		20	$\mu A$	
$I_{OZL}$	$V_{CC} = 5.5 V$ ,	$V_O = 0.5 V$			-20		-20	$\mu A$	
$I_{CCL}$	$V_{CC} = 5.5 V$ ,	Outputs open			28		28	40	mA
$I_{CCH}$	$V_{CC} = 5.5 V$ ,	Outputs open			15		15	25	mA
$I_{CCZ}$	$V_{CC} = 5.5 V$ ,	Outputs open			3.5		3.5	6	mA
$C_i$	$V_{CC} = 5 V$ ,	$V_I = 2.5 V$ or $0.5 V$			6		6	pF	
$C_o$	$V_{CC} = 5 V$ ,	$V_O = 2.5 V$ or $0.5 V$			8		8	pF	

† All typical values are at  $V_{CC} = 5 V$ ,  $T_A = 25^\circ C$ .

‡ Not more than one output should be tested at a time, and the duration of the test should not exceed one second.

**switching characteristics over recommended ranges of supply voltage and operating free-air temperature,  $C_L = 50 pF$  (unless otherwise noted) (see Note 2)**

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 5 V$ , $T_A = 25^\circ C$			SN54BCT29827B		SN74BCT29827B		UNIT
			MIN	TYP	MAX	MIN	MAX	MIN	MAX	
$t_{PLH}$	A	Y	1.6	3.3	5.3	1.6	5.5	1.6	5.5	ns
$t_{PHL}$			2.7	5.1	7.3	2.7	7.7	2.7	7.5	
$t_{PZH}$	$\overline{OE}$	Y	2.7	5.3	7.9	2.7	10.6	2.7	9.1	ns
$t_{PZL}$			5.3	8.5	12.1	5.3	13.5	5.3	12.8	
$t_{PHZ}$	$\overline{OE}$	Y	2.8	5.4	8.2	2.8	9.4	2.8	8.8	ns
$t_{PLZ}$			2.3	5.1	7.6	2.3	9.1	2.3	8.4	

NOTE 2: Load circuits and voltage waveforms are shown in Section 1.



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