

SN49712N

DIVIDER 80 TO 1 WITH BCD OUTPUTS AND GATED RESET

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage	7 V
Input voltage (see note 1)	5.5 V
Operating free-air temperature range	0° C to 70° C
Storage temperature range	-65° C to 150° C

Note: voltage values are with respect to network ground terminal.

recommended operating conditions

	MIN	NOM	MAX	UNIT
Supply voltage V_{CC} (see note 1)	4.75	5	5.25	V
Fan-out from any output			10	
Count frequency, input B ₁ and A ₂ input A ₁	0		12.5	MHz
	0		25	MHz
Pulse width at input B ₁ at inputs A ₁ , A ₂ , R ₀	30			ns
	15			ns
Rise and fall time of input pulse			50	ns/V
Operating free-air temperature range	0		70	° C

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

PARAMETER	TEST CONDITIONS	MIN	TYP ⁺	MAX	UNIT
V_{IH} High-level input voltage		2			V
V_{IL} Low-level input voltage				0.8	V
V_I Input clamp voltage	$V_{CC} = 5.25$ V, $I_I = -12$ mA			-1.5	V
V_{OH} High-level output voltage	$V_{CC} = 4.75$ V, $I_{OH} = 400$ μ A	2.4			V
V_{OL} Low-level output voltage	$V_{CC} = 4.75$ V, $I_{OL} = 16$ mA			0.4	V
I_I Input current at maximum input voltage	$V_{CC} = 5.25$ V, $V_I = 5.5$ V			1	mA
I_{IH} High level input current Inputs A ₁ , A ₂ , B ₁ Inputs R ₀	$V_{CC} = 5.25$ V, $V_I = 2.4$ V			120 40	μ A
I_{IL} Low level input current Inputs A ₁ , A ₂ , B ₁ Inputs R ₀	$V_{CC} = 5.25$ V, $V_I = 0.4$ V			-4.8 -1.6	mA
I_{CC} Supply current	$V_{CC} = 5.25$ V		58	95	mA

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

switching characteristics, $V_{CC} = 5$ V, $T_A = 25^\circ$ C, $N = 10$ ($C_L = 15$ pF, $R_L = 400$ Ω)

PARAMETER ⁺	FROM (INPUT)	TO (OUTPUT)	MIN	TYP	MAX	UNIT
t_{PHL} , t_{PLH}	Input A ₁ Input B ₁ Input A ₂	A ₁ B ₂ , C ₁ , D ₁ A ₂ , B ₂ , C ₂		12	20 50 70	ns
t_{PHL}	Input R ₀	any		30	60	ns

⁺ t_{PHL} = Propagation delay time, high-level output to low-level output
 t_{PLH} = Propagation delay time, low-level output to high-level output