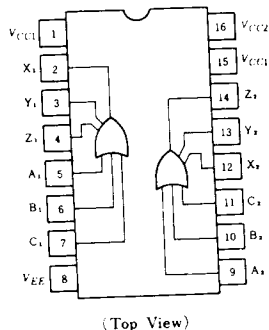


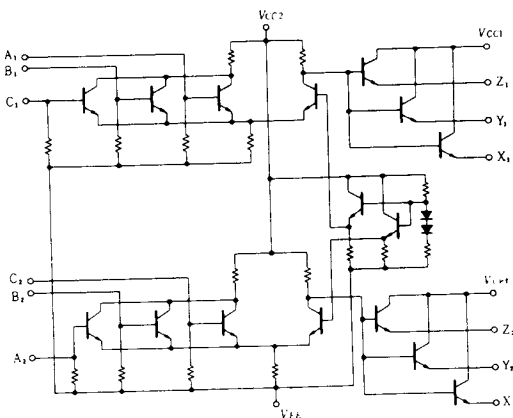
HD10110

Dual 3-input 3-output OR Gates

PIN ARRANGEMENT



CIRCUIT SCHEMATIC



DC CHARACTERISTICS ($V_{EE} = -5.2V$, $T_a = -30 \sim +85^\circ C$)

Item	Symbol	Test Condition	min	typ	max	Unit
Supply Current	I_{EE}		25°C	—	30	mA
Input Current	I_{IH}	$V_{IH} = -0.810V$	25°C	—	425	μA
	I_{IL}	$V_{IL} = -1.850V$	25°C	0.5	—	μA
Output Voltage	V_{OH}	$V_{IH} = -0.890V$	-30°C	-1.060	-0.890	V
		$V_{IH} = -0.810V$	25°C	-0.960	-0.810	V
		$V_{IH} = -0.700V$	85°C	-0.890	-0.700	V
	V_{OL}	$V_{IL} = -1.890V$	-30°C	-1.890	-1.675	V
		$V_{IL} = -1.850V$	25°C	-1.850	-1.650	V
		$V_{IL} = -1.825V$	85°C	-1.825	-1.615	V
Output Threshold Voltage	V_{OHA}	$V_{IHA} = -1.205V$	-30°C	-1.080	—	V
		$V_{IHA} = -1.105V$	25°C	-0.980	—	V
		$V_{IHA} = -1.035V$	85°C	-0.910	—	V
	V_{OLA}	$V_{ILA} = -1.500V$	-30°C	—	-1.655	V
		$V_{ILA} = -1.475V$	25°C	—	-1.630	V
		$V_{ILA} = -1.440V$	85°C	—	-1.595	V

AC CHARACTERISTICS ($V_{EE} = -3.2V$, $V_{CC} = +2.0V$, $T_a = -30 \sim +85^\circ C$)

■ AC CHARACTERISTICS ($V_{EE} = -3.2V$, $V_{CC} = +2.0V$, $R_A = 50\Omega$)							
Item	Symbol	Test Condition	min	typ	max	Unit	
Propagation Delay Time	t_{PLH}	$R_L = 50\Omega$	-30°C	1.4	—	3.5	ns
			25°C	1.4	2.4	3.5	
			85°C	1.5	—	3.8	
	t_{PHL}		-30°C	1.4	—	3.5	ns
			25°C	1.4	2.4	3.5	
			85°C	1.5	—	3.8	
Rise/Fall Time	t_{TLH}		-30°C	1.0	—	3.5	ns
			25°C	1.1	2.2	3.5	
			85°C	1.2	—	3.8	
	t_{TNL}		-30°C	1.0	—	3.5	ns
			25°C	1.1	2.2	3.5	
			85°C	1.2	—	3.8	

Note: Please refer to test circuit and waveform of common item.