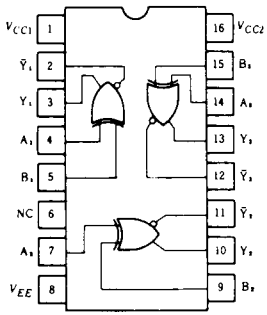
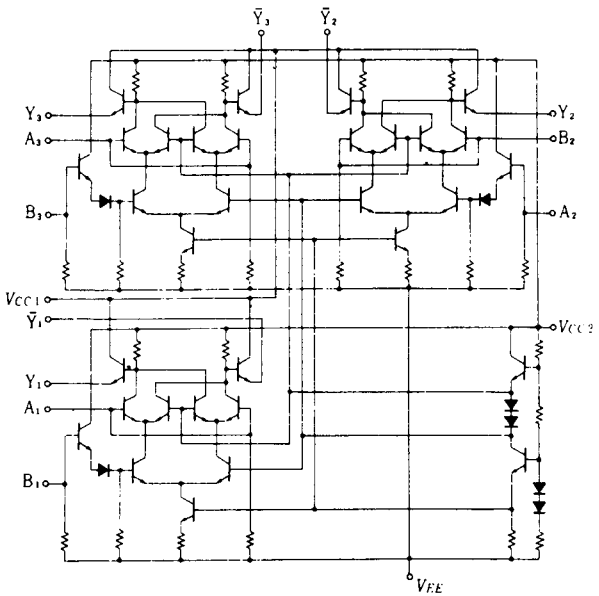
Triple 2-input Exclusive-OR/Exclusive-NOR Gates

■PIN ARRANGEMENT



(Top View)

■CIRCUIT SCHEMATIC



■DC CHARACTERISTICS ($V_{EE} = -5.2V$, $Ta = -30 \sim +85°C$)

Item	Symbol	Test Condition			min	typ	max	Unit
Supply Current	I_{EE}	All inputs = −0.810V		25°C	—	—	28	mA
Input Current	I_{IH}	V_{IH} = −0.810V	A input	25°C	—	—	265	μA
			B input		—	—	220	
	I_{IL}	V_{IL} = −1.850V		25°C	0.5	—	—	μA
Output Voltage	V_{OH}	V_{IH} = −0.890V or V_{IL} = −1.890V		−30°C	−1.060	—	−0.890	V
		V_{IH} = −0.810V or V_{IL} = −1.850V		25°C	−0.960	—	−0.810	
		V_{IH} = −0.700V or V_{IL} = −1.825V		85°C	−0.890	—	−0.700	
	V_{OL}	V_{IL} = −1.890V or V_{IH} = −0.890V		−30°C	−1.890	—	−1.675	V
		V_{IL} = −1.850V or V_{IH} = −0.810V		25°C	−1.850	—	−1.650	
		V_{IL} = −1.825V or V_{IH} = −0.700V		85°C	−1.825	—	−1.615	
Output Threshold Voltage	V_{OHA}	V_{IHA} = −1.205V or V_{ILA} = −1.500V		−30°C	−1.080	—	—	V
		V_{IHA} = −1.105V or V_{ILA} = −1.475V		25°C	−0.980	—	—	
		V_{IHA} = −1.035V or V_{ILA} = −1.440V		85°C	−0.910	—	—	
	V_{OLA}	V_{ILA} = −1.500V or V_{IHA} = −1.205V		−30°C	—	—	−1.655	V
		V_{ILA} = −1.475V or V_{IHA} = −1.105V		25°C	—	—	−1.630	
		V_{ILA} = −1.440V or V_{IHA} = −1.035V		85°C	—	—	−1.595	

■AC CHARACTERISTICS ($V_{EE}=-3.2V$, $V_{CC}=+2.0V$, $Ta=-30\sim+85°C$)

Item	Symbol	Test Condition			min	typ	max	Unit
Propagation Delay Time	t_{PLH}	A input	$R_L=50\Omega$	−30°C	1.1	—	3.8	ns
				25°C	1.1	2.0	3.7	
				85°C	1.1	—	4.0	
		B input		−30°C	1.1	—	3.8	
				25°C	1.1	2.8	3.7	
				85°C	1.1	—	4.0	
	t_{PHL}	A input		−30°C	1.1	—	3.8	ns
				25°C	1.1	2.0	3.7	
				85°C	1.1	—	4.0	
		B input		−30°C	1.1	—	3.8	
				25°C	1.1	2.8	3.7	
				85°C	1.1	—	4.0	
Rise/Fall Time	t_{TLH}	A, B input		−30°C	1.1	—	3.5	ns
				25°C	1.1	2.5	3.5	
				85°C	1.1	—	3.8	
	t_{THL}			−30°C	1.1	—	3.5	ns
				25°C	1.1	2.5	3.5	
				85°C	1.1	—	3.8	

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