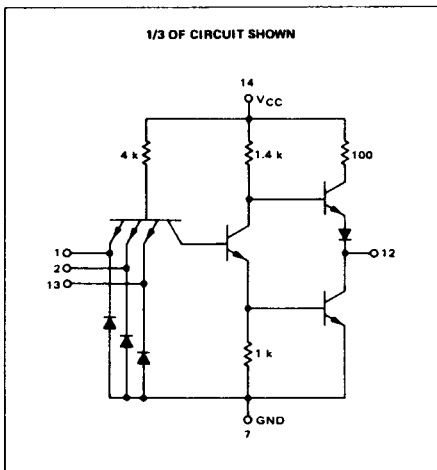


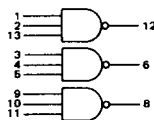
TRIPLE 3-INPUT "NAND" GATE

MTTL MC7400P series
MTTL MC5400L/7400L series

MC5410L*
MC7410P,L*



This package consists of three 3-input NAND gates. Each gate may be used as an inverter, or two gates may be cross-coupled to form bistable circuits.



Positive Logic: $12 = 1 \cdot 2 \cdot 13$
Negative Logic: $12 = \overline{1 \cdot 2 \cdot 13}$

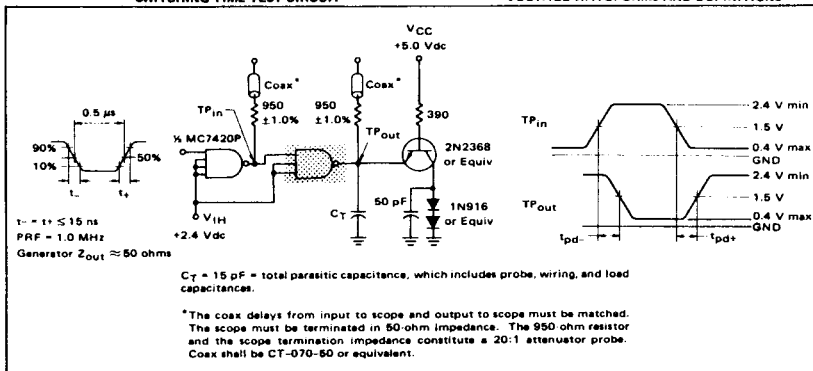
Input Loading Factor = 1
Output Loading Factor = 10

Total Power Dissipation = 30 mW typ/pkg
Propagation Delay Time = 13 ns typ

* L suffix = TO-116 ceramic package (Case 632)
P suffix = TO-116 plastic package (Case 606)
See General Information section for package outline dimensions.

SWITCHING TIME TEST CIRCUIT

VOLTAGE WAVEFORMS AND DEFINITIONS



4. 9

ELECTRICAL CHARACTERISTICS

Test procedures are shown for only one gate. The other gates are tested in the same manner. Further, test procedures are shown for only one input of the gate under test. To complete testing, sequence through remaining inputs.



Characteristic	Symbol	Pin Under Test	MC5410 Test Limits -55 to +125°C			MC7410 Test Limits 0 to +70°C			TEST CURRENT/VOLTAGE VALUES (All Temperatures)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			Min	Max	Unit	Min	Max	Unit	mA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			TEST CURRENT/VOLTAGE APPLIED TO PINS LISTED BELOW:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Forward Current	I_F	1	-	-1.6	mAdc	-	-1.6	mAdc	I_{Ox}	I_{Oy}	V_{Ox}	V_{Oy}	V_{OH}	V_{OL}	V_{IH}	V_{IL}	V_{IH1}	V_{IH2}	V_{IH3}	V_{IH4}	V_{IH5}	V_{IH6}	V_{IH7}	V_{IH8}	V_{IH9}	V_{IH10}	V_{IH11}	V_{IH12}	V_{IH13}	V_{IH14}	V_{IH15}	V_{IH16}	V_{IH17}	V_{IH18}	V_{IH19}	V_{IH20}	V_{IH21}	V_{IH22}	V_{IH23}	V_{IH24}	V_{IH25}	V_{IH26}	V_{IH27}	V_{IH28}	V_{IH29}	V_{IH30}	V_{IH31}	V_{IH32}	V_{IH33}	V_{IH34}	V_{IH35}	V_{IH36}	V_{IH37}	V_{IH38}	V_{IH39}	V_{IH40}	V_{IH41}	V_{IH42}	V_{IH43}	V_{IH44}	V_{IH45}	V_{IH46}	V_{IH47}	V_{IH48}	V_{IH49}	V_{IH50}	V_{IH51}	V_{IH52}	V_{IH53}	V_{IH54}	V_{IH55}	V_{IH56}	V_{IH57}	V_{IH58}	V_{IH59}	V_{IH60}	V_{IH61}	V_{IH62}	V_{IH63}	V_{IH64}	V_{IH65}	V_{IH66}	V_{IH67}	V_{IH68}	V_{IH69}	V_{IH70}	V_{IH71}	V_{IH72}	V_{IH73}	V_{IH74}	V_{IH75}	V_{IH76}	V_{IH77}	V_{IH78}	V_{IH79}	V_{IH80}	V_{IH81}	V_{IH82}	V_{IH83}	V_{IH84}	V_{IH85}	V_{IH86}	V_{IH87}	V_{IH88}	V_{IH89}	V_{IH90}	V_{IH91}	V_{IH92}	V_{IH93}	V_{IH94}	V_{IH95}	V_{IH96}	V_{IH97}	V_{IH98}	V_{IH99}	V_{IH100}	V_{IH101}	V_{IH102}	V_{IH103}	V_{IH104}	V_{IH105}	V_{IH106}	V_{IH107}	V_{IH108}	V_{IH109}	V_{IH110}	V_{IH111}	V_{IH112}	V_{IH113}	V_{IH114}	V_{IH115}	V_{IH116}	V_{IH117}	V_{IH118}	V_{IH119}	V_{IH120}	V_{IH121}	V_{IH122}	V_{IH123}	V_{IH124}	V_{IH125}	V_{IH126}	V_{IH127}	V_{IH128}	V_{IH129}	V_{IH130}	V_{IH131}	V_{IH132}	V_{IH133}	V_{IH134}	V_{IH135}	V_{IH136}	V_{IH137}	V_{IH138}	V_{IH139}	V_{IH140}	V_{IH141}	V_{IH142}	V_{IH143}	V_{IH144}	V_{IH145}	V_{IH146}	V_{IH147}	V_{IH148}	V_{IH149}	V_{IH150}	V_{IH151}	V_{IH152}	V_{IH153}	V_{IH154}	V_{IH155}	V_{IH156}	V_{IH157}	V_{IH158}	V_{IH159}	V_{IH160}	V_{IH161}	V_{IH162}	V_{IH163}	V_{IH164}	V_{IH165}	V_{IH166}	V_{IH167}	V_{IH168}	V_{IH169}	V_{IH170}	V_{IH171}	V_{IH172}	V_{IH173}	V_{IH174}	V_{IH175}	V_{IH176}	V_{IH177}	V_{IH178}	V_{IH179}	V_{IH180}	V_{IH181}	V_{IH182}	V_{IH183}	V_{IH184}	V_{IH185}	V_{IH186}	V_{IH187}	V_{IH188}	V_{IH189}	V_{IH190}	V_{IH191}	V_{IH192}	V_{IH193}	V_{IH194}	V_{IH195}	V_{IH196}	V_{IH197}	V_{IH198}	V_{IH199}	V_{IH200}	V_{IH201}	V_{IH202}	V_{IH203}	V_{IH204}	V_{IH205}	V_{IH206}	V_{IH207}	V_{IH208}	V_{IH209}	V_{IH210}	V_{IH211}	V_{IH212}	V_{IH213}	V_{IH214}	V_{IH215}	V_{IH216}	V_{IH217}	V_{IH218}	V_{IH219}	V_{IH220}	V_{IH221}	V_{IH222}	V_{IH223}	V_{IH224}	V_{IH225}	V_{IH226}	V_{IH227}	V_{IH228}	V_{IH229}	V_{IH230}	V_{IH231}	V_{IH232}	V_{IH233}	V_{IH234}	V_{IH235}	V_{IH236}	V_{IH237}	V_{IH238}	V_{IH239}	V_{IH240}	V_{IH241}	V_{IH242}	V_{IH243}	V_{IH244}	V_{IH245}	V_{IH246}	V_{IH247}	V_{IH248}	V_{IH249}	V_{IH250}	V_{IH251}	V_{IH252}	V_{IH253}	V_{IH254}	V_{IH255}	V_{IH256}	V_{IH257}	V_{IH258}	V_{IH259}	V_{IH260}	V_{IH261}	V_{IH262}	V_{IH263}	V_{IH264}	V_{IH265}	V_{IH266}	V_{IH267}	V_{IH268}	V_{IH269}	V_{IH270}	V_{IH271}	V_{IH272}	V_{IH273}	V_{IH274}	V_{IH275}	V_{IH276}	V_{IH277}	V_{IH278}	V_{IH279}	V_{IH280}	V_{IH281}	V_{IH282}	V_{IH283}	V_{IH284}	V_{IH285}	V_{IH286}	V_{IH287}	V_{IH288}	V_{IH289}	V_{IH290}	V_{IH291}	V_{IH292}	V_{IH293}	V_{IH294}	V_{IH295}	V_{IH296}	V_{IH297}	V_{IH298}	V_{IH299}	V_{IH300}	V_{IH301}	V_{IH302}	V_{IH303}	V_{IH304}	V_{IH305}	V_{IH306}	V_{IH307}	V_{IH308}	V_{IH309}	V_{IH310}	V_{IH311}	V_{IH312}	V_{IH313}	V_{IH314}	V_{IH315}	V_{IH316}	V_{IH317}	V_{IH318}	V_{IH319}	V_{IH320}	V_{IH321}	V_{IH322}	V_{IH323}	V_{IH324}	V_{IH325}	V_{IH326}	V_{IH327}	V_{IH328}	V_{IH329}	V_{IH330}	V_{IH331}	V_{IH332}	V_{IH333}	V_{IH334}	V_{IH335}	V_{IH336}	V_{IH337}	V_{IH338}	V_{IH339}	V_{IH340}	V_{IH341}	V_{IH342}	V_{IH343}	V_{IH344}	V_{IH345}	V_{IH346}	V_{IH347}	V_{IH348}	V_{IH349}	V_{IH350}	V_{IH351}	V_{IH352}	V_{IH353}	V_{IH354}	V_{IH355}	V_{IH356}	V_{IH357}	V_{IH358}	V_{IH359}	V_{IH360}	V_{IH361}	V_{IH362}	V_{IH363}	V_{IH364}	V_{IH365}	V_{IH366}	V_{IH367}	V_{IH368}	V_{IH369}	V_{IH370}	V_{IH371}	V_{IH372}	V_{IH373}	V_{IH374}	V_{IH375}	V_{IH376}	V_{IH377}	V_{IH378}	V_{IH379}	V_{IH380}	V_{IH381}	V_{IH382}	V_{IH383}	V_{IH384}	V_{IH385}	V_{IH386}	V_{IH387}	V_{IH388}	V_{IH389}	V_{IH390}	V_{IH391}	V_{IH392}	V_{IH393}	V_{IH394}	V_{IH395}	V_{IH396}	V_{IH397}	V_{IH398}	V_{IH399}	V_{IH400}	V_{IH401}	V_{IH402}	V_{IH403}	V_{IH404}	V_{IH405}	V_{IH406}	V_{IH407}	V_{IH408}	V_{IH409}	V_{IH410}	V_{IH411}	V_{IH412}	V_{IH413}	V_{IH414}	V_{IH415}	V_{IH416}	V_{IH417}	V_{IH418}	V_{IH419}	V_{IH420}	V_{IH421}	V_{IH422}	V_{IH423}	V_{IH424}	V_{IH425}	V_{IH426}	V_{IH427}	V_{IH428}	V_{IH429}	V_{IH430}	V_{IH431}	V_{IH432}	V_{IH433}	V_{IH434}	V_{IH435}	V_{IH436}	V_{IH437}	V_{IH438}	V_{IH439}	V_{IH440}	V_{IH441}	V_{IH442}	V_{IH443}	V_{IH444}	V_{IH445}	V_{IH446}	V_{IH447}	V_{IH448}	V_{IH449}	V_{IH450}	V_{IH451}	V_{IH452}	V_{IH453}	V_{IH454}	V_{IH455}	V_{IH456}	V_{IH457}	V_{IH458}	V_{IH459}	V_{IH460}	V_{IH461}	V_{IH462}	V_{IH463}	V_{IH464}	V_{IH465}	V_{IH466}	V_{IH467}	V_{IH468}	V_{IH469}	V_{IH470}	V_{IH471}	V_{IH472}	V_{IH473}	V_{IH474}	V_{IH475}	V_{IH476}	V_{IH477}	V_{IH478}	V_{IH479}	V_{IH480}	V_{IH481}	V_{IH482}	V_{IH483}	V_{IH484}	V_{IH485}	V_{IH486}	V_{IH487}	V_{IH488}	V_{IH489}	V_{IH490}	V_{IH491}	V_{IH492}	V_{IH493}	V_{IH494}	V_{IH495}	V_{IH496}	V_{IH497}	V_{IH498}	V_{IH499}	V_{IH500}	V_{IH501}	V_{IH502}	V_{IH503}	V_{IH504}	V_{IH505}	V_{IH506}	V_{IH507}	V_{IH508}	V_{IH509}	V_{IH510}	V_{IH511}	V_{IH512}	V_{IH513}	V_{IH514}	V_{IH515}	V_{IH516}	V_{IH517}	V_{IH518}	V_{IH519}	V_{IH520}	V_{IH521}	V_{IH522}	V_{IH523}	V_{IH524}	V_{IH525}	V_{IH526}	V_{IH527}	V_{IH528}	V_{IH529}	V_{IH530}	V_{IH531}	V_{IH532}	V_{IH533}	V_{IH534}	V_{IH535}	V_{IH536}	V_{IH537}	V_{IH538}	V_{IH539}	V_{IH540}	V_{IH541}	V_{IH542}	V_{IH543}	V_{IH544}	V_{IH545}	V_{IH546}	V_{IH547}	V_{IH548}	V_{IH549}	V_{IH550}	V_{IH551}	V_{IH552}	V_{IH553}	V_{IH554}	V_{IH555}	V_{IH556}	V_{IH557}	V_{IH558}	V_{IH559}	V_{IH560}	V_{IH561}	V_{IH562}	V_{IH563}	V_{IH564}	V_{IH565}	V_{IH566}	V_{IH567}	V_{IH568}	V_{IH569}	V_{IH570}	V_{IH571}	V_{IH572}	V_{IH573}	V_{IH574}	V_{IH575}	V_{IH576}	V_{IH577}	V_{IH578}	V_{IH579}	V_{IH580}	V_{IH581}	V_{IH582}	V_{IH583}	V_{IH584}	V_{IH585}	V_{IH586}	V_{IH587}	V_{IH588}	V_{IH589}	V_{IH590}	V_{IH591}	V_{IH592}	V_{IH593}	V_{IH594}	V_{IH595}	V_{IH596}	V_{IH597}	V_{IH598}	V_{IH599}	V_{IH600}	V_{IH601}	V_{IH602}	V_{IH603}	V_{IH604}	V_{IH605}	V_{IH606}	V_{IH607}	V_{IH608}	V_{IH609}	V_{IH610}	V_{IH611}	V_{IH612}	V_{IH613}	V_{IH614}	V_{IH615}	V_{IH616}	V_{IH617}	V_{IH618}	V_{IH619}	V_{IH620}	V_{IH621}	V_{IH622}	V_{IH623}	V_{IH624}	V_{IH625}	V_{IH626}	V_{IH627}	V_{IH628}	V_{IH629}	V_{IH630}	V_{IH631}	V_{IH632}	V_{IH633}	V_{IH634}	V_{IH635}	V_{IH636}	V_{IH637}	V_{IH638}	V_{IH639}	V_{IH640}	V_{IH641}	V_{IH642}	V_{IH643}	V_{IH644}	V_{IH645}	V_{IH646}	V_{IH647}	V_{IH648}	V_{IH649}	V_{IH650}	V_{IH651}	V_{IH652}	V_{IH653}	V_{IH654}	V_{IH655}	V_{IH656}	V_{IH657}	V_{IH658}	V_{IH659}	V_{IH660}	V_{IH661}	V_{IH662}	V_{IH663}	V_{IH664}	V_{IH665}	V_{IH666}	V_{IH667}	V_{IH668}	V_{IH669}	V_{IH670}	V_{IH671}	V_{IH672}	V_{IH673}	V_{IH674}	V_{IH675}	V_{IH676}	V_{IH677}	V_{IH678}	V_{IH679}	V_{IH680}	V_{IH681}	V_{IH682}	V_{IH683}	V_{IH684}	V_{IH685}	V_{IH686}	V_{IH687}	V_{IH688}	V_{IH689}	V_{IH690}	V_{IH691}	V_{IH692}	V_{IH693}	V_{IH694}	V_{IH695}	V_{IH696}	V_{IH697}	V_{IH698}	V_{IH699}	V_{IH700}	V_{IH701}	V_{IH702}	V_{IH703}	V_{IH704}	V_{IH705}	V_{IH706}	V_{IH707}	V_{IH708}	V_{IH709}	V_{IH710}	V_{IH711}	V_{IH712}	V_{IH713}	V_{IH714}	V_{IH715}	V_{IH716}	V_{IH717}	V_{IH718}	V_{IH719}	V_{IH720}	V_{IH721}	V_{IH722}	V_{IH723}	V_{IH724}	V_{IH725}	V_{IH726}	V_{IH727}	V_{IH728}	V_{IH729}	V_{IH730}	V_{IH731}	V_{IH732}	V_{IH733}	V_{IH734}	V_{IH735}	V_{IH736}	V_{IH737}	V_{IH738}	V_{IH739}	V_{IH740}	V_{IH741}	V_{IH742}	V_{IH743}	V_{IH744}	V_{IH745}	V_{IH746}	V_{IH747}	V_{IH748}	V_{IH749}	V_{IH750}	V_{IH751}	V_{IH752}	V_{IH753}	V_{IH754}	V_{IH755}	V_{IH756}	V_{IH757}	V_{IH758}	V_{IH759}	V_{IH760}	V_{IH761}	V_{IH762}	V_{IH763}	V_{IH764}	V_{IH765}	V_{IH766}	V_{IH767}	V_{IH768}	V_{IH769}	V_{IH770}	V_{IH771}	V_{IH772}	V_{IH773}	V_{IH774}	V_{IH775}	V_{IH776}	V_{IH777}	V_{IH778}	V_{IH779}	V_{IH780}	V_{IH781}	V_{IH782}	V_{IH783}	V_{IH784}	V_{IH785}	V_{IH786}	