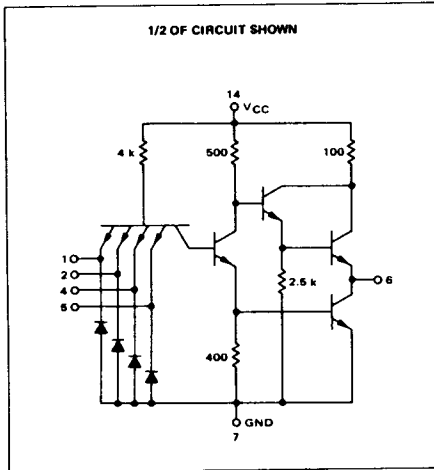


MTTL MC7400P series
MTTL MC5400L/7400L series

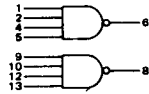
DUAL 4-INPUT "NAND"
BUFFER

MC5440L*
MC7440P,L*

1/2 OF CIRCUIT SHOWN



This device consists of two 4-input NAND power gate circuits. Each gate is designed for driving high fan-out loads (30).



Positive Logic: $6 = 1 + 2 + 4 + 5$
Negative Logic: $6 = 1 + 2 + 4 + 5$

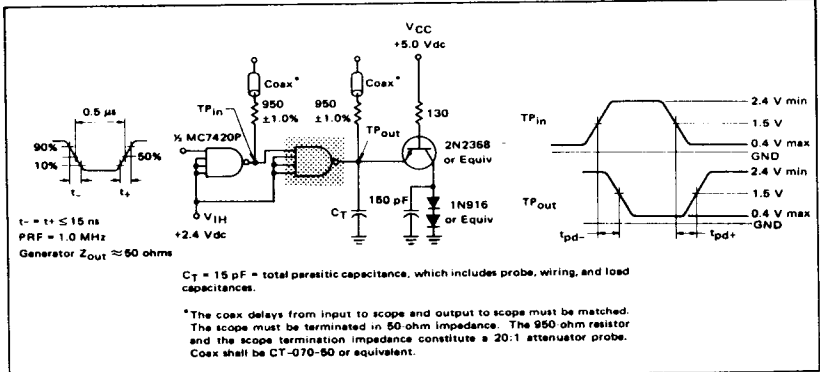
Input Loading Factor = 1
Output Loading Factor = 30

Total Power Dissipation = 60 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

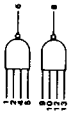
VOLTAGE WAVEFORMS AND DEFINITIONS



11-12

ELECTRICAL CHARACTERISTICS

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



MC5440
MC7440

Characteristic	Symbol	Pin Under Test	MC5440 Test Limits -55 to +125°C		MC7440 Test Limits 0 to +70°C		TEST CURRENT/VOLTAGE VALUES (All Temperatures)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			Min	Max	Unit	Min	Max	Volts																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			mA	I_{OL}	I_{OH}	V_{IL}	V_{IH}	V_{M0}	V_{M1}	V_{M2}	V_{M3}	V_{M4}	V_{M5}	V_{M6}	V_{M7}	V_{M8}	V_{M9}	V_{M10}	V_{M11}	V_{M12}	V_{M13}	V_{M14}	V_{M15}	V_{M16}	V_{M17}	V_{M18}	V_{M19}	V_{M20}	V_{M21}	V_{M22}	V_{M23}	V_{M24}	V_{M25}	V_{M26}	V_{M27}	V_{M28}	V_{M29}	V_{M30}	V_{M31}	V_{M32}	V_{M33}	V_{M34}	V_{M35}	V_{M36}	V_{M37}	V_{M38}	V_{M39}	V_{M40}	V_{M41}	V_{M42}	V_{M43}	V_{M44}	V_{M45}	V_{M46}	V_{M47}	V_{M48}	V_{M49}	V_{M50}	V_{M51}	V_{M52}	V_{M53}	V_{M54}	V_{M55}	V_{M56}	V_{M57}	V_{M58}	V_{M59}	V_{M60}	V_{M61}	V_{M62}	V_{M63}	V_{M64}	V_{M65}	V_{M66}	V_{M67}	V_{M68}	V_{M69}	V_{M70}	V_{M71}	V_{M72}	V_{M73}	V_{M74}	V_{M75}	V_{M76}	V_{M77}	V_{M78}	V_{M79}	V_{M80}	V_{M81}	V_{M82}	V_{M83}	V_{M84}	V_{M85}	V_{M86}	V_{M87}	V_{M88}	V_{M89}	V_{M90}	V_{M91}	V_{M92}	V_{M93}	V_{M94}	V_{M95}	V_{M96}	V_{M97}	V_{M98}	V_{M99}	V_{M100}	V_{M101}	V_{M102}	V_{M103}	V_{M104}	V_{M105}	V_{M106}	V_{M107}	V_{M108}	V_{M109}	V_{M110}	V_{M111}	V_{M112}	V_{M113}	V_{M114}	V_{M115}	V_{M116}	V_{M117}	V_{M118}	V_{M119}	V_{M120}	V_{M121}	V_{M122}	V_{M123}	V_{M124}	V_{M125}	V_{M126}	V_{M127}	V_{M128}	V_{M129}	V_{M130}	V_{M131}	V_{M132}	V_{M133}	V_{M134}	V_{M135}	V_{M136}	V_{M137}	V_{M138}	V_{M139}	V_{M140}	V_{M141}	V_{M142}	V_{M143}	V_{M144}	V_{M145}	V_{M146}	V_{M147}	V_{M148}	V_{M149}	V_{M150}	V_{M151}	V_{M152}	V_{M153}	V_{M154}	V_{M155}	V_{M156}	V_{M157}	V_{M158}	V_{M159}	V_{M160}	V_{M161}	V_{M162}	V_{M163}	V_{M164}	V_{M165}	V_{M166}	V_{M167}	V_{M168}	V_{M169}	V_{M170}	V_{M171}	V_{M172}	V_{M173}	V_{M174}	V_{M175}	V_{M176}	V_{M177}	V_{M178}	V_{M179}	V_{M180}	V_{M181}	V_{M182}	V_{M183}	V_{M184}	V_{M185}	V_{M186}	V_{M187}	V_{M188}	V_{M189}	V_{M190}	V_{M191}	V_{M192}	V_{M193}	V_{M194}	V_{M195}	V_{M196}	V_{M197}	V_{M198}	V_{M199}	V_{M200}	V_{M201}	V_{M202}	V_{M203}	V_{M204}	V_{M205}	V_{M206}	V_{M207}	V_{M208}	V_{M209}	V_{M210}	V_{M211}	V_{M212}	V_{M213}	V_{M214}	V_{M215}	V_{M216}	V_{M217}	V_{M218}	V_{M219}	V_{M220}	V_{M221}	V_{M222}	V_{M223}	V_{M224}	V_{M225}	V_{M226}	V_{M227}	V_{M228}	V_{M229}	V_{M230}	V_{M231}	V_{M232}	V_{M233}	V_{M234}	V_{M235}	V_{M236}	V_{M237}	V_{M238}	V_{M239}	V_{M240}	V_{M241}	V_{M242}	V_{M243}	V_{M244}	V_{M245}	V_{M246}	V_{M247}	V_{M248}	V_{M249}	V_{M250}	V_{M251}	V_{M252}	V_{M253}	V_{M254}	V_{M255}	V_{M256}	V_{M257}	V_{M258}	V_{M259}	V_{M260}	V_{M261}	V_{M262}	V_{M263}	V_{M264}	V_{M265}	V_{M266}	V_{M267}	V_{M268}	V_{M269}	V_{M270}	V_{M271}	V_{M272}	V_{M273}	V_{M274}	V_{M275}	V_{M276}	V_{M277}	V_{M278}	V_{M279}	V_{M280}	V_{M281}	V_{M282}	V_{M283}	V_{M284}	V_{M285}	V_{M286}	V_{M287}	V_{M288}	V_{M289}	V_{M290}	V_{M291}	V_{M292}	V_{M293}	V_{M294}	V_{M295}	V_{M296}	V_{M297}	V_{M298}	V_{M299}	V_{M300}	V_{M301}	V_{M302}	V_{M303}	V_{M304}	V_{M305}	V_{M306}	V_{M307}	V_{M308}	V_{M309}	V_{M310}	V_{M311}	V_{M312}	V_{M313}	V_{M314}	V_{M315}	V_{M316}	V_{M317}	V_{M318}	V_{M319}	V_{M320}	V_{M321}	V_{M322}	V_{M323}	V_{M324}	V_{M325}	V_{M326}	V_{M327}	V_{M328}	V_{M329}	V_{M330}	V_{M331}	V_{M332}	V_{M333}	V_{M334}	V_{M335}	V_{M336}	V_{M337}	V_{M338}	V_{M339}	V_{M340}	V_{M341}	V_{M342}	V_{M343}	V_{M344}	V_{M345}	V_{M346}	V_{M347}	V_{M348}	V_{M349}	V_{M350}	V_{M351}	V_{M352}	V_{M353}	V_{M354}	V_{M355}	V_{M356}	V_{M357}	V_{M358}	V_{M359}	V_{M360}	V_{M361}	V_{M362}	V_{M363}	V_{M364}	V_{M365}	V_{M366}	V_{M367}	V_{M368}	V_{M369}	V_{M370}	V_{M371}	V_{M372}	V_{M373}	V_{M374}	V_{M375}	V_{M376}	V_{M377}	V_{M378}	V_{M379}	V_{M380}	V_{M381}	V_{M382}	V_{M383}	V_{M384}	V_{M385}	V_{M386}	V_{M387}	V_{M388}	V_{M389}	V_{M390}	V_{M391}	V_{M392}	V_{M393}	V_{M394}	V_{M395}	V_{M396}	V_{M397}	V_{M398}	V_{M399}	V_{M400}	V_{M401}	V_{M402}	V_{M403}	V_{M404}	V_{M405}	V_{M406}	V_{M407}	V_{M408}	V_{M409}	V_{M410}	V_{M411}	V_{M412}	V_{M413}	V_{M414}	V_{M415}	V_{M416}	V_{M417}	V_{M418}	V_{M419}	V_{M420}	V_{M421}	V_{M422}	V_{M423}	V_{M424}	V_{M425}	V_{M426}	V_{M427}	V_{M428}	V_{M429}	V_{M430}	V_{M431}	V_{M432}	V_{M433}	V_{M434}	V_{M435}	V_{M436}	V_{M437}	V_{M438}	V_{M439}	V_{M440}	V_{M441}	V_{M442}	V_{M443}	V_{M444}	V_{M445}	V_{M446}	V_{M447}	V_{M448}	V_{M449}	V_{M450}	V_{M451}	V_{M452}	V_{M453}	V_{M454}	V_{M455}	V_{M456}	V_{M457}	V_{M458}	V_{M459}	V_{M460}	V_{M461}	V_{M462}	V_{M463}	V_{M464}	V_{M465}	V_{M466}	V_{M467}	V_{M468}	V_{M469}	V_{M470}	V_{M471}	V_{M472}	V_{M473}	V_{M474}	V_{M475}	V_{M476}	V_{M477}	V_{M478}	V_{M479}	V_{M480}	V_{M481}	V_{M482}	V_{M483}	V_{M484}	V_{M485}	V_{M486}	V_{M487}	V_{M488}	V_{M489}	V_{M490}	V_{M491}	V_{M492}	V_{M493}	V_{M494}	V_{M495}	V_{M496}	V_{M497}	V_{M498}	V_{M499}	V_{M500}	V_{M501}	V_{M502}	V_{M503}	V_{M504}	V_{M505}	V_{M506}	V_{M507}	V_{M508}	V_{M509}	V_{M510}	V_{M511}	V_{M512}	V_{M513}	V_{M514}	V_{M515}	V_{M516}	V_{M517}	V_{M518}	V_{M519}	V_{M520}	V_{M521}	V_{M522}	V_{M523}	V_{M524}	V_{M525}	V_{M526}	V_{M527}	V_{M528}	V_{M529}	V_{M530}	V_{M531}	V_{M532}	V_{M533}	V_{M534}	V_{M535}	V_{M536}	V_{M537}	V_{M538}	V_{M539}	V_{M540}	V_{M541}	V_{M542}	V_{M543}	V_{M544}	V_{M545}	V_{M546}	V_{M547}	V_{M548}	V_{M549}	V_{M550}	V_{M551}	V_{M552}	V_{M553}	V_{M554}	V_{M555}	V_{M556}	V_{M557}	V_{M558}	V_{M559}	V_{M560}	V_{M561}	V_{M562}	V_{M563}	V_{M564}	V_{M565}	V_{M566}	V_{M567}	V_{M568}	V_{M569}	V_{M570}	V_{M571}	V_{M572}	V_{M573}	V_{M574}	V_{M575}	V_{M576}	V_{M577}	V_{M578}	V_{M579}	V_{M580}	V_{M581}	V_{M582}	V_{M583}	V_{M584}	V_{M585}	V_{M586}	V_{M587}	V_{M588}	V_{M589}	V_{M590}	V_{M591}	V_{M592}	V_{M593}	V_{M594}	V_{M595}	V_{M596}	V_{M597}	V_{M598}	V_{M599}	V_{M600}	V_{M601}	V_{M602}	V_{M603}	V_{M604}	V_{M605}	V_{M606}	V_{M607}	V_{M608}	V_{M609}	V_{M610}	V_{M611}	V_{M612}	V_{M613}	V_{M614}	V_{M615}	V_{M616}	V_{M617}	V_{M618}	V_{M619}	V_{M620}	V_{M621}	V_{M622}	V_{M623}	V_{M624}	V_{M625}	V_{M626}	V_{M627}	V_{M628}	V_{M629}	V_{M630}	V_{M631}	V_{M632}	V_{M633}	V_{M634}	V_{M635}	V_{M636}	V_{M637}	V_{M638}	V_{M639}	V_{M640}	V_{M641}	V_{M642}	V_{M643}	V_{M644}	V_{M645}	V_{M646}	V_{M647}	V_{M648}	V_{M649}	V_{M650}	V_{M651}	V_{M652}	V_{M653}	V_{M654}	V_{M655}	V_{M656}	V_{M657}	V_{M658}	V_{M659}	V_{M660}	V_{M661}	V_{M662}	V_{M663}	V_{M664}	V_{M665}	V_{M666}	V_{M667}	V_{M668}	V_{M669}	V_{M670}	V_{M671}	V_{M672}	V_{M673}	V_{M674}	V_{M675}	V_{M676}	V_{M677}	V_{M678}	V_{M679}	V_{M680}	V_{M681}	V_{M682}	V_{M683}	V_{M684}	V_{M685}	V_{M686}	V_{M687}	V_{M688}	V_{M689}	V_{M690}	V_{M691}	V_{M692}	V_{M693}	V_{M694}	V_{M695}	V_{M696}	V_{M697}	V_{M698}	V_{M699}	V_{M700}	V_{M701}	V_{M702}	V_{M703}	V_{M704}	V_{M705}	V_{M706}	V_{M707}	V_{M708}	V_{M709}	V_{M710}	V_{M711}	V_{M712}	V_{M713}	V_{M714}	V_{M715}	V_{M716}	V_{M717}	V_{M718}	V_{M719}	V_{M720}	V_{M721}	V_{M722}	V_{M723}	V_{M724}	V_{M725}	V_{M726}	V_{M727}	V_{M728}	V_{M729}	V_{M730}	V_{M731}	V_{M732}	V_{M733}	V_{M734}	V_{M735}	V_{M736}	V_{M737}	V_{M738}	V_{M739}	V_{M740}	V_{M741}	V_{M742}	V_{M743}	V_{M744}	V_{M745}	V_{M746}	V_{M747}	V_{M748}	V_{M749}	V_{M750}	V_{M751}	V_{M752}	V_{M753}	V_{M754}	V_{M755}	V_{M756}	V_{M757}	V_{M758}	V_{M759}	V_{M760}	V_{M761}	V_{M762}	V_{M763}	V_{M764}	V_{M765}	V_{M766}	V_{M767}	V_{M768}	V_{M769}	V_{M770}	V_{M771}	V_{M772}	V_{M773}	V_{M774}	V_{M775}	V_{M776}	V_{M777}	V_{M778}	V_{M779}	V_{M780}	V_{M781}	V_{M782}	V_{M783}	V_{M784}	V_{M785}	V_{M786}	V_{M787}	V_{M788}	V_{M789}