

SERIES UHD-400, UHD-400-1, AND UHD-500 POWER AND RELAY DRIVERS MIL-STD-883 Compliant

FEATURES

- 500 mA Output Current-Sink Capability
- Four Logic Types
- Pinning Compatible with 54/74 Logic Series
- High-Voltage Output:
100 V Series UHD-500
70 V Series UHD-400-1
40 V Series UHD-400

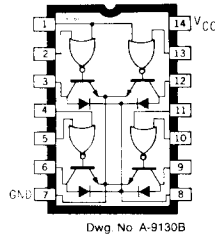
COMBINING LOGIC GATES and high-current switching transistors, these hermetically packaged, monolithic devices are used to drive incandescent or LED lamps, relays, solenoids, small dc motors, and other peripheral power loads in military and aerospace applications. Drivers with internal transient-suppression diodes are recommended for use with inductive loads.

Three minimum output-breakdown voltage ratings are available: 40 V (Series UHD-400), 70 V (Series UHD-400-1), and 100 V (Series UHD-500). All devices can sink 250 mA continuous, or 500 mA peak.

The inputs are compatible with standard TTL and CMOS logic levels. Four of eight available logic/output configurations are shown at right.

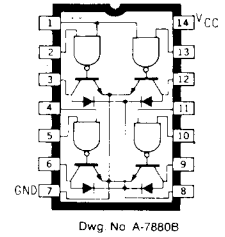
These devices are supplied in ceramic/metal side-brazed 14-pin hermetic packages. The package conforms to the dimensional requirements of MIL-M-38510 and is rated for operation over the full military temperature range of -55°C to $+125^{\circ}\text{C}$. Power and relay drivers in flat-pack packages, Series UHC-400, UHC-400-1, and UHC-500, continue to be available on special order.

Monolithic construction enables cost-effective and reliable systems design. Reverse-bias burn-in and 100% high-reliability screening to MIL-STD-883, Class B, is standard for all devices.



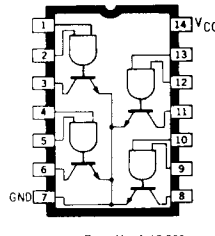
Dwg. No. A-9130B

**UHD-403
UHD-403-1
UHD-503**



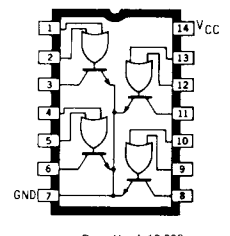
Dwg. No. A-7880B

**UHD-406
UHD-406-1
UHD-506**



Dwg. No. A-12,388

**UHD-408
UHD-408-1
UHD-508**



Dwg. No. A-12,389

**UHD-432
UHD-432-1
UHD-532**

Device Part Number Designation

Part Numbers*			Function
400	400-1	500	Quad 2-Input AND
402	402-1	502	Quad 2-Input OR
403	403-1	503	Quad OR for Inductive Loads
406	406-1	506	Quad AND for Inductive Loads
407	407-1	507	Quad NAND for Inductive Loads
408	408-1	508	Quad 2-Input NAND
432	432-1	532	Quad 2-Input NOR
433	433-1	533	Quad NOR for Inductive Loads

*Complete part number includes the prefix UHD.

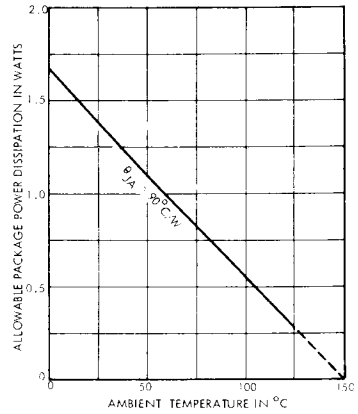


**SERIES UHD-400, UHD-400-1, AND UHD-500
POWER AND RELAY DRIVERS**

ABSOLUTE MAXIMUM RATINGS

Supply Voltage, V_{CC}	7 V
Output Voltage, V_{IN}	5.5 V
Output Off-State Voltage, V_{OFF}	
Series UHD-400	40 V
Series UHD-400-1	70 V
Series UHD-500	100 V
Output On-State Sink Current, I_{ON}	
(one driver)	500 mA
(total package)	1 A
Suppression Diode Off-State Voltage, V_R	
Series UHD-400	40 V
Series UHD-400-1	70 V
Series UHD-500	100 V
Suppression Diode On-State Current, I_f	500 mA
Operating Free-Air Temperature Range, T_A	- 55°C to + 125°C
Storage Temperature Range, T_S	- 65°C to + 150°C

ALLOWABLE PACKAGE POWER DISSIPATION



Dwg. No. A-10.884B

RECOMMENDED OPERATING CONDITIONS

	Min.	Nom.	Max.	Units
Supply Voltage (V_{CC})	4.5	5.0	5.5	V
Operating Temperature Range	- 55	+ 25	+ 125	°C
Current into Any Output (ON State)	—	—	250	mA

SWITCHING CHARACTERISTICS at $T_A = +25^\circ\text{C}$, $V_{CC} = 5.0\text{ V}$

Characteristic	Series	Test Conditions (Note 3)	Limits			Units
			Min.	Typ.	Max.	
Turn-On Delay Time (t_{p01})	UHD-400	$V_S = 40\text{ V}$, $R_t = 265\Omega$ (6 W)	—	200	500	ns
	UHD-400-1	$V_S = 70\text{ V}$, $R_t = 465\Omega$ (10 W)	—	200	500	ns
	UHD-500	$V_S = 100\text{ V}$, $R_t = 670\Omega$ (15 W)	—	200	500	ns
Turn-Off Delay Time (t_{p01})	UHD-400	$V_S = 40\text{ V}$, $R_t = 265\Omega$ (6 W)	—	300	750	ns
	UHD-400-1	$V_S = 70\text{ V}$, $R_t = 465\Omega$ (10 W)	—	300	750	ns
	UHD-500	$V_S = 100\text{ V}$, $R_t = 670\Omega$ (15 W)	—	300	750	ns

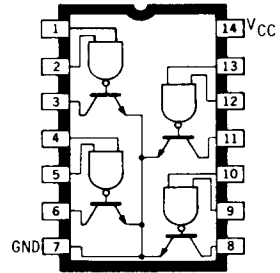
NOTES:

- Each input tested separately.
- Voltage values shown in the test-circuit waveforms are with respect to network ground terminal.
- $C_i = 15\text{ pF}$. Capacitance value specified includes probe and test fixture capacitance.

INPUT PULSE CHARACTERISTICS

$V_{(in0)} = 0\text{ V}$	$t_f \leq 7.0\text{ ns}$	$t_r = 1.0\text{ }\mu\text{s}$
$V_{(in1)} = 3.5\text{ V}$	$t_f \leq 14\text{ ns}$	PRR = 500 kHz

**UHD-400, UHD-400-1, UHD-500
Quad 2-Input AND Power Drivers**



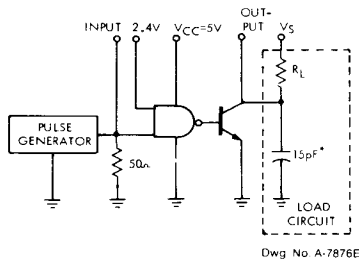
Dwg. No. A-7606

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

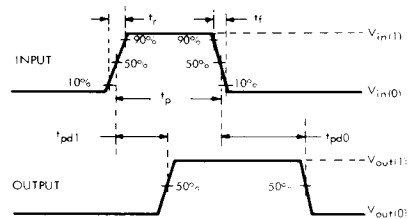
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits				
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	Units	
Output Reverse Current	I _{CEX}	—	UHD-400	4.5 V	2.0 V	2.0 V	40 V	—	—	100	μA	
			UHD-400-1	4.5 V	2.0 V	2.0 V	70 V	—	—	100	μA	
			UHD-500	4.5 V	2.0 V	2.0 V	100 V	—	—	100	μA	
Output Voltage	V _{CE(SAT)}	-55°C to +25°C	All	4.5 V	0.8 V	4.5 V	150 mA	—	—	0.5	V	
				4.5 V	0.8 V	4.5 V	250 mA	—	—	0.7	V	
		+125°C	All	4.5 V	0.8 V	4.5 V	150 mA	—	—	0.6	V	
				4.5 V	0.8 V	4.5 V	250 mA	—	—	0.8	V	
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V	
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V	
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	—	800	μA
				5.5 V	2.4 V	0 V	—	—	—	—	40	μA
				5.5 V	5.5 V	0 V	—	—	—	—	1000	μA
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	5.0 V	5.0 V	—	—	4.0	7.5	mA	
		+25°C	All	5.5 V	0 V	0 V	—	—	17.5	26.5	mA	

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_a = +25°C.
2. Each input is tested separately.



Dwg. No. A-7876E

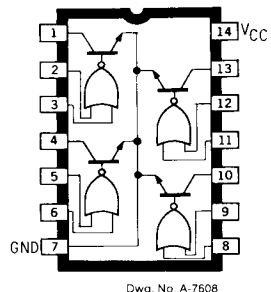


Dwg. No. A-7628C

*Includes probe and test fixture capacitance.



**UHD-402, UHD-402-1, UHD-502
Quad 2-Input OR Power Drivers**



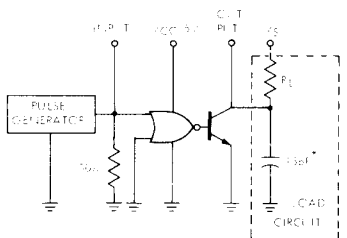
Dwg. No. A-7608

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

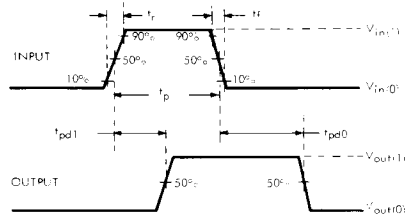
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	Units
Output Reverse Current	I _{CEX}	—	UHD-402	4.5 V	2.0 V	0 V	40 V	—	—	100	μA
			UHD-402-1	4.5 V	2.0 V	0 V	70 V	—	—	100	μA
			UHD-502	4.5 V	2.0 V	0 V	100 V	—	—	100	μA
Output Voltage	V _{CE(SAT)}	- 55°C to + 25°C	All	4.5 V	0.8 V	0.8 V	150 mA	—	—	0.5	V
				4.5 V	0.8 V	0.8 V	250 mA	—	—	0.7	V
		+ 125°C	All	4.5 V	0.8 V	0.8 V	150 mA	—	—	0.6	V
				4.5 V	0.8 V	0.8 V	250 mA	—	—	0.8	V
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-800	μA
				5.5 V	2.4 V	0 V	—	—	—	40	μA
	I _{IN(1)}	—	All	5.5 V	5.5 V	0 V	—	—	—	1000	μA
Supply Current (Each Gate)	I _{CC(1)}	+ 25°C	All	5.5 V	5.0 V	5.0 V	—	—	4.1	7.5	mA
	I _{CC(0)}	+ 25°C	All	5.5 V	0 V	0 V	—	—	18	26.5	mA

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_a = + 25°C.
2. Each input is tested separately.



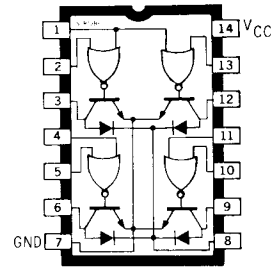
Dwg. No. A-7877C



Dwg. No. A-7628C

*Includes probe and test fixture capacitance.

UHD-403, UHD-403-1, UHD-503
Quad OR Relay Drivers



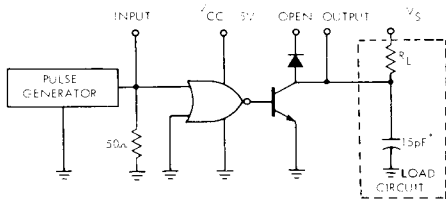
Dwg. No. A-9130B

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			Units	
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.		
Output Reverse Current	I _{CEX}	—	UHD-403	4.5 V	2.0 V	0 V	40 V	—	—	100	μA	
			UHD-403-1	4.5 V	2.0 V	0 V	70 V	—	—	100	μA	
			UHD-503	4.5 V	2.0 V	0 V	100 V	—	—	100	μA	
Output Voltage	V _{CEISAT1}	-55°C to +25°C	All	4.5 V	0.8 V	0.8 V	150 mA	—	—	0.5	V	
				4.5 V	0.8 V	0.8 V	250 mA	—	—	0.7	V	
			All	4.5 V	0.8 V	0.8 V	150 mA	—	—	0.6	V	
				4.5 V	0.8 V	0.8 V	250 mA	—	—	0.8	V	
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V	
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V	
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	—	800	μA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	40	μA	
				5.5 V	5.5 V	0 V	—	—	—	1000	μA	
Strobe Input Current	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	1.6	mA	
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	100	μA	
				5.5 V	5.5 V	0 V	—	—	—	1000	μA	
Diode Leakage Current (Note 3)	I _R	—	All	5.0 V	0 V	0 V	Open	—	—	200	μA	
Diode Forward Voltage	V _F	—	All	5.0 V	5.0 V	5.0 V	200 mA	—	1.5	1.75	V	
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	5.0 V	5.0 V	—	—	6.0	7.5	mA	
	I _{CC(0)}	+25°C	All	5.5 V	0 V	0 V	—	—	20	26.5	mA	

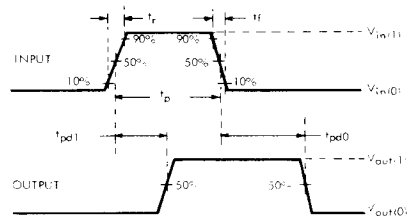
NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_a = +25°C.
2. Excluding strobe input; each input is tested separately.
3. All diodes tested simultaneously at pin 8 at rated V_{FR}.



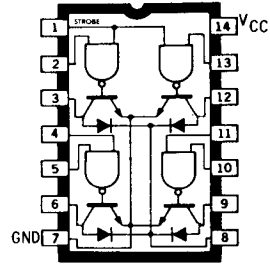
Dwg. No. A-9123C

*Includes probe and test fixture capacitance.



Dwg. No. A-7628C

**UHD-406, UHD-406-1, UHD-506
Quad AND Relay Drivers**



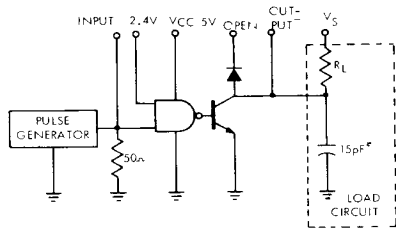
Dwg. No. A-7880B

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

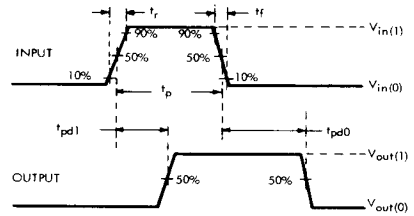
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			Units
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	
Output Reverse Current	I _{CEX}	—	UHD-406	4.5 V	2.0 V	2.0 V	40 V	—	—	100	μA
			UHD-406-1	4.5 V	2.0 V	2.0 V	70 V	—	—	100	μA
			UHD-506	4.5 V	2.0 V	2.0 V	100 V	—	—	100	μA
Output Voltage	V _{CE(SAT)}	-55°C to +25°C	All	4.5 V	0.8 V	4.5 V	150 mA	—	—	0.5	V
				4.5 V	0.8 V	4.5 V	250 mA	—	—	0.7	V
		+125°C	All	4.5 V	0.8 V	4.5 V	150 mA	—	—	0.6	V
				4.5 V	0.8 V	4.5 V	250 mA	—	—	0.8	V
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-800	μA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	40	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Strobe Input Current	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-1.6	mA
				5.5 V	2.4 V	0 V	—	—	—	100	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Diode Leakage Current (Note 3)	I _R	—	All	5.0 V	0 V	0 V	Open	—	—	200	μA
Diode Forward Voltage	V _F	—	All	5.0 V	5.0 V	5.0 V	200 mA	—	1.5	1.75	V
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	5.0 V	5.0 V	—	—	4.0	7.5	mA
	I _{CC(0)}	+25°C	All	5.5 V	0 V	0 V	—	—	17.5	26.5	mA

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_A = +25°C.
2. Excluding strobe input; each input is tested separately.
3. All diodes tested simultaneously at pin 8 at rated V_{OFF}.



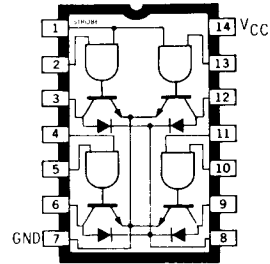
Dwg. No. A-7878C



Dwg. No. A-7628C

*Includes probe and test fixture capacitance.

UHD-407, UHD-407-1, UHD-507 Quad NAND Relay Drivers



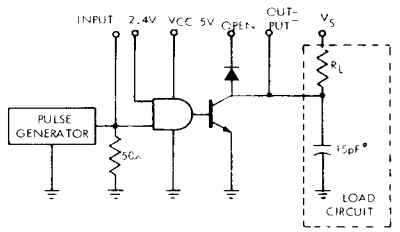
Dwg. No. A-7973B

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	Units
Output Reverse Current	I _{CEX}	—	UHD-407	4.5 V	0.8 V	4.5 V	40 V	—	—	100	μA
			UHD-407-1	4.5 V	0.8 V	4.5 V	70 V	—	—	100	μA
			UHD-507	4.5 V	0.8 V	4.5 V	100 V	—	—	100	μA
Output Voltage	V _{CE(SAT)}	-55°C to +25°C	All	4.5 V	2.0 V	2.0 V	150 mA	—	—	0.5	V
				4.5 V	2.0 V	2.0 V	250 mA	—	—	0.7	V
			All	4.5 V	2.0 V	2.0 V	150 mA	—	—	0.6	V
				4.5 V	2.0 V	2.0 V	250 mA	—	—	0.8	V
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-800	μA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	40	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Strobe Input Current	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-1.6	mA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	100	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Diode Leakage Current (Note 3)	I _R	—	All	5.0 V	5.0 V	5.0 V	Open	—	—	200	μA
Diode Forward Voltage	V _F	—	All	5.0 V	0 V	0 V	200 mA	—	1.5	1.75	V
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	0 V	0 V	—	—	6.0	7.5	mA
	I _{CC(0)}	+25°C	All	5.5 V	5.0 V	5.0 V	—	—	20	26.5	mA

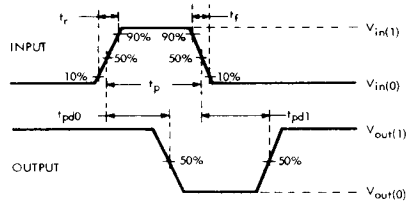
NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_a = +25°C.
2. Excluding strobe input; each input is tested separately.
3. All diodes tested simultaneously at pin 8 at rated V_{OFF}.



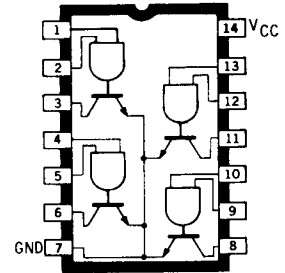
Dwg. No. A-7899C

*Includes probe and test fixture capacitance.



Dwg. No. A-7900A

**UHD-408, UHD-408-1, UHD-508
Quad 2-Input NAND Power Drivers**



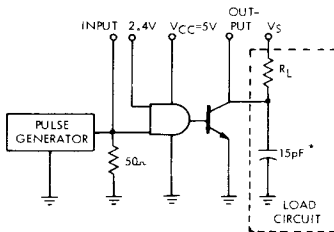
Dwg. No. 12,388

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

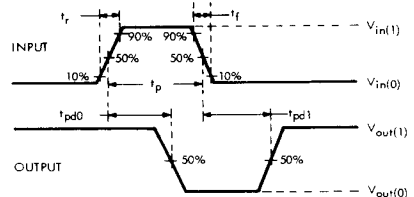
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			Units
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	
Output Reverse Current	I _{CEX}	---	UHD-408	4.5 V	0.8 V	4.5 V	40 V	---	---	100	μA
			UHD-408-1	4.5 V	0.8 V	4.5 V	70 V	---	---	100	μA
			UHD-508	4.5 V	0.8 V	4.5 V	100 V	---	---	100	μA
Output Voltage	V _{CE(SAT)}	-55°C to +25°C	All	4.5 V	2.0 V	2.0 V	150 mA	---	---	0.5	V
				4.5 V	2.0 V	2.0 V	250 mA	---	---	0.7	V
		+125°C	All	4.5 V	2.0 V	2.0 V	150 mA	---	---	0.6	V
				4.5 V	2.0 V	2.0 V	250 mA	---	---	0.8	V
Input Voltage	V _{IN(1)}	---	All	4.5 V	---	---	---	2.0	---	---	V
	V _{IN(0)}	---	All	4.5 V	---	---	---	---	---	0.8	V
Input Current (Note 2)	I _{IN(0)}	---	All	5.5 V	0.4 V	4.5 V	---	---	---	-800	μA
	I _{IN(1)}	---	All	5.5 V	2.4 V	0 V	---	---	---	40	μA
				5.5 V	5.5 V	0 V	---	---	---	1000	μA
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	0 V	0 V	---	---	6.0	7.5	mA
	I _{CC(0)}	+25°C	All	5.5 V	5.0 V	5.0 V	---	---	20	26.5	mA

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_A = +25°C.
2. Each input is tested separately.



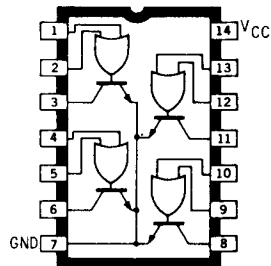
Dwg. No. A-9638A



Dwg. No. A-7900A

*Includes probe and test fixture capacitance.

UHD-432, UHD-432-1, UHD-532 Quad 2-Input NOR Power Drivers



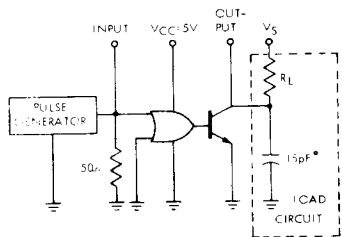
Dwg. No. A-12,389

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

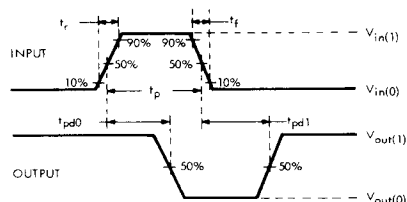
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			Units
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	
Output Reverse Current	I _{CEX}	—	UHD-432	4.5 V	0.8 V	0.8 V	40 V	—	—	100	μA
			UHD-432-1	4.5 V	0.8 V	0.8 V	70 V	—	—	100	μA
			UHD-532	4.5 V	0.8 V	0.8 V	100 V	—	—	100	μA
Output Voltage	V _{CE(SAT)}	-55°C to +25°C	All	4.5 V	2.0 V	0 V	150 mA	—	—	0.5	V
				4.5 V	2.0 V	0 V	250 mA	—	—	0.7	V
		+125°C	All	4.5 V	2.0 V	0 V	150 mA	—	—	0.6	V
				4.5 V	2.0 V	0 V	250 mA	—	—	0.8	V
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-800	μA
				5.5 V	2.4 V	0 V	—	—	—	40	μA
	I _{IN(1)}	—	All	5.5 V	5.5 V	0 V	—	—	—	1000	μA
Supply Current (Each Gate)	I _{CC(1)}	+25°C	All	5.5 V	0 V	0 V	—	—	6.0	7.5	mA
	I _{CC(0)}	+25°C	All	5.5 V	5.0 V	5.0 V	—	—	20	26.5	mA

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_a = +25°C.
2. Each input is tested separately.



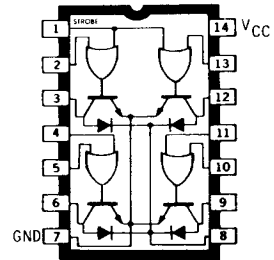
Dwg. No. A-7902C



Dwg. No. A-7900A

*Includes probe and test fixture capacitance.

**UHD-433, UHD-433-1, UHD-533
Quad NOR Relay Drivers**



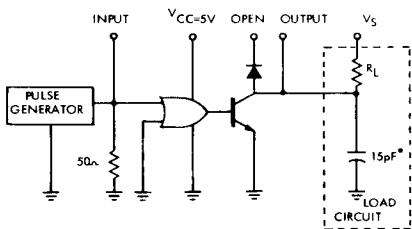
Dwg. No. A-12.390A

ELECTRICAL CHARACTERISTICS over operating temperature range (unless otherwise noted)

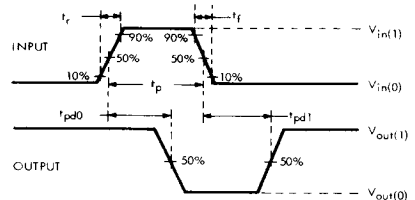
Characteristic	Symbol	Temp.	Applicable Devices	Test Conditions				Limits			
				V _{CC}	Driven Input	Other Input	Output	Min.	Typ.	Max.	Units
Output Reverse Current	I _{CEX}	—	UHD-433	4.5 V	0.8 V	0.8 V	40 V	—	—	100	μA
			UHD-433-1	4.5 V	0.8 V	0.8 V	70 V	—	—	100	μA
			UHD-533	4.5 V	0.8 V	0.8 V	100 V	—	—	100	μA
Output Voltage	V _{CE(SAT)}	- 55°C to + 25°C	All	4.5 V	2.0 V	0 V	150 mA	—	—	0.5	V
				4.5 V	2.0 V	0 V	250 mA	—	—	0.7	V
			All	4.5 V	2.0 V	0 V	150 mA	—	—	0.6	V
				4.5 V	2.0 V	0 V	250 mA	—	—	0.8	V
Input Voltage	V _{IN(1)}	—	All	4.5 V	—	—	—	2.0	—	—	V
	V _{IN(0)}	—	All	4.5 V	—	—	—	—	—	0.8	V
Input Current (Note 2)	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-800	μA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	40	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Strobe Input Current	I _{IN(0)}	—	All	5.5 V	0.4 V	4.5 V	—	—	—	-1.6	mA
	I _{IN(1)}	—	All	5.5 V	2.4 V	0 V	—	—	—	100	μA
				5.5 V	5.5 V	0 V	—	—	—	1000	μA
Diode Leakage Current (Note 3)	I _R	—	All	5.0 V	5.0 V	5.0 V	Open	—	—	200	μA
Diode Forward Voltage	V _F	—	All	5.0 V	0 V	0 V	200 mA	—	1.5	1.75	V
Supply Current (Each Gate)	I _{CC(1)}	+ 25°C	All	5.5 V	0 V	0 V	—	—	6.0	7.5	mA
	I _{CC(0)}	+ 25°C	All	5.5 V	5.0 V	5.0 V	—	—	20	26.5	mA

NOTES:

1. All typical values are at V_{CC} = 5.0 V, T_A = + 25°C.
2. Excluding strobe input; each input is tested separately.
3. All diodes tested simultaneously at pin 8 at rated V_{OFF}.



Dwg. No. A-9135C



Dwg. No. A-7900A

*Includes probe and test fixture capacitance.