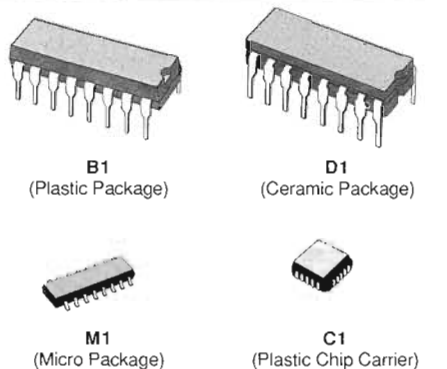


QUAD SET - RESET LATCH

DESCRIPTION

The T74LS279 is a high speed QUAD SET-RESET LATCH fabricated in LOW POWER SCHOTTKY technology.

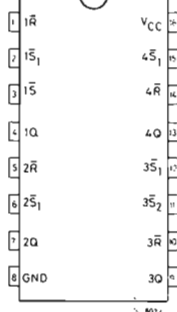


ORDER CODES :

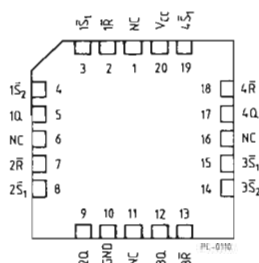
T74LS279 D1	T74LS279 C1
T74LS279 B1	T74LS279 M1

PIN CONNECTION (top view)

DUAL IN LINE

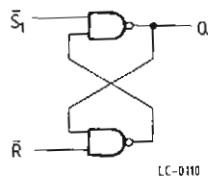
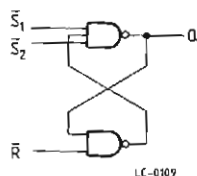


CHIP CARRIER



NC = No Internal Connection

LOGIC DIAGRAMS



TRUTH TABLE

INPUTS			OUTPUT (Q)
$\bar{S}_1$	$\bar{S}_2$	R	
L	L	L	h
L	X	H	H
X	L	H	H
H	H	L	L
H	H	H	No Change

L = LOW Voltage Level

H = HIGH Voltage Level

X = Don't Care

h = The output is HIGH as long as S_1 or S_2 is LOW. If all inputs go HIGH simultaneously, the output state is indeterminate, otherwise, it follows the Truth Table.

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	- 0.5 to 7	V
V_I	Input Voltage, Applied to Input	- 0.5 to 15	V
V_O	Output Voltage, Applied to Output	- 0.5 to 10	V
I_I	Input Current, Into Inputs	- 30 to 5	mA
I_O	Output Current, Into Outputs	50	mA

Stresses in excess of those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions in excess of those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

GUARANTEED OPERATING RANGE

Part Numbers	Supply Voltage			Temperature
	Min.	Typ.	Max.	
T74LS279XX	4.75 V	5.0 V	5.25 V	0 °C to + 70 °C

XX = package type.

DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE

Symbol	Parameter	Limits			Test Condition (note 1)	Unit
		Min.	Typ. (*)	Max.		
V_{IH}	Input HIGH Voltage	2.0			Guaranteed Input HIGH Voltage for All Input	V
V_{IL}	Input LOW Voltage			0.8	Guaranteed Input LOW Voltage for All Input	V
V_{CD}	Input Clamp Diode Voltage		- 0.65	- 1.5	$V_{CC} = \text{MIN}$, $I_{IN} = -18 \text{ mA}$	V
V_{OH}	Output HIGH Voltage	2.7	3.4		$V_{CC} = \text{MIN}$, $I_{OH} = -400 \mu\text{A}$ $V_{IN} = V_{IH}$ or V_{IL} per Truth Table	V
V_{OL}	Output LOW Voltage		0.25	0.4	$I_{OL} = 4.0 \text{ mA}$, $V_{CC} = \text{MIN}$	V
			0.35	0.5	$I_{OL} = 8.0 \text{ mA}$, $V_{IN} = V_{IH}$ or V_{IL} per Truth Table	V
I_{IH}	Input HIGH Current			20 0.1	$V_{CC} = \text{MAX}$, $V_{IN} = 2.7 \text{ V}$ $V_{CC} = \text{MAX}$, $V_{IN} = 7.0 \text{ V}$	μA mA
I_{IL}	Input LOW Current			- 0.4	$V_{CC} = \text{MAX}$, $V_{IN} = 0.4 \text{ V}$	mA
I_{OS}	Output Short Circuit Current (note 2)	- 20		- 100	$V_{CC} = \text{MAX}$, $V_{IN} = 0 \text{ V}$	mA
I_{CC}	Power Supply Current		3.8	7.0	$V_{CC} = \text{MAX}$	mA

Notes : 1. For conditions shown as MIN or MAX, use the appropriate value specified under guaranteed operating conditions for the device type.
 2. Not more than one output should be shorted at a time.
 (*) Typical values are at $V_{CC} = 5.0 \text{ V}$, $T_A = 25^\circ\text{C}$.

AC CHARACTERISTICS : $T_A = 25^\circ\text{C}$ (see page 576 for AC test circuit and waveforms)

Symbol	Parameter	Limits			Test Conditions	Unit
		Min.	Typ.	Max.		
t_{PLH}	Propagation Delay, S to Output		12	22	$V_{CC} = 5.0 \text{ V}$ $C_L = 15 \text{ pF}$	ns
t_{PHL}	Propagation Delay, R to Output		15	27		ns