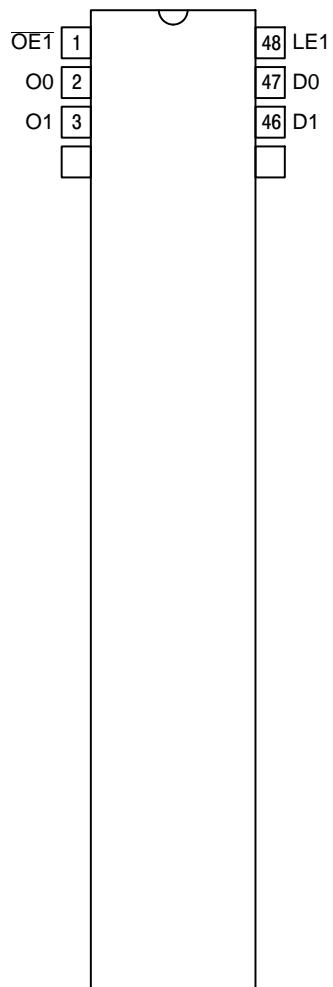


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# MC74LCX16373



# MC74LCX16373

## MAXIMUM RATINGS

Symbol	Parameter	Value	Condition	Units
$V_{CC}$	DC Supply Voltage	-0.5 to +7.0		V
$V_I$	DC Input Voltage	$-0.5 \leq V_I \leq +7.0$		V
$V_O$	DC Output Voltage	$-0.5 \leq V_O \leq +7.0$	Output in 3-State	V
		$-0.5 \leq V_O \leq V_{CC} + 0.5$	Output in HIGH or LOW State. (Note 1)	V
$I_{IK}$	DC Input Diode Current	-50	$V_I < GND$	mA
$I_{OK}$	DC Output Diode Current	-50	$V_O < GND$	mA
		+50	$V_O > V_{CC}$	mA
$I_O$	DC Output Source/Sink Current	50		mA
$I_{CC}$	DC Supply Current Per Supply Pin	100		mA
$I_{GND}$	DC Ground Current Per Ground Pin	100		mA
$T_{STG}$	Storage Temperature Range	-65 to +150		C
MSL	Moisture Sensitivity		Level 1	

Stresses

# MC74LCX16373

## DC ELECTRICAL CHARACTERISTICS

Symbol	Characteristic	Condition	$T_A = -55^\circ C$ to $+125^\circ C$		Units
			Min	Max	
$V_{IH}$	HIGH Level Input Voltage (Note 2)	2.3 V $V_{CC}$ 2.7 V	1.7		V
		2.7 V $V_{CC}$ 3.6 V	2.0		
$V_{IL}$	LOW Level Input Voltage (Note 2)	2.3 V $V_{CC}$ 2.7 V		0.7	V
		2.7 V $V_{CC}$ 3.6 V		0.8	
$V_{OH}$	HIGH Level Output Voltage	2.3 V $V_{CC}$ 3.6 V; $I_{OL} = 100 \mu A$	$V_{CC} - 0.2$		V
		$V_{CC} = 2.3 V$ ; $I_{OH} = -8 mA$	1.8		
		$V_{CC} = 2.7 V$ ; $I_{OH} = -12 mA$	2.2		
		$V_{CC} = 3.0 V$ ; $I_{OH} = -18 mA$	2.4		
		$V_{CC} = 3.0 V$ ; $I_{OH} = -24 mA$	2.2		
				0.2	
				0.6	
				0.4	
				0.4	
				0.55	
				5	$\mu A$
				10	
				5	
				20	
				500	

**MC74LCX16373**



# MC74LCX16373

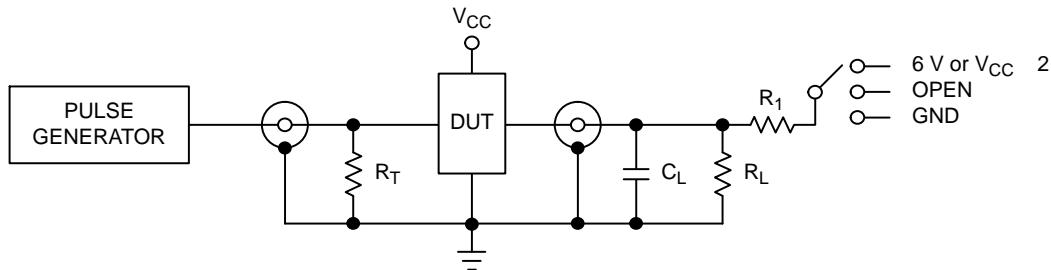


Figure 4. Test Circuit

Table 3. TEST CIRCUIT

Test	Switch
$t_{PLH}, t_{PHL}$	Open
$t_{PZL}, t_{PLZ}$	6 V at $V_{CC} = 3.3$ 0.3 V 6 V at $V_{CC} = 2.5$ 0.2 V
Open Collector/Drain $t_{PLH}$ and $t_{PHL}$	6 V
$t_{PZH}, t_{PHZ}$	GND

$C_L$  = 50 pF at  $V_{CC} = 3.3$  0.3 V or equivalent (includes jig and probe capacitance)

$C_L$  = 30 pF at  $V_{CC} = 2.5$  0.2 V or equivalent (includes jig and probe capacitance)

$R_L$  =  $R_1$  = 500  $\Omega$  or equivalent

$R_T$  =  $Z_{OUT}$  of pulse generator (typically 50  $\Omega$ )

**TSSOP-48**  
CASE 1201  
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