

Maximum Ratings

-0.5V to +7V
-1.5V to +5.5V
-0.5V to +5.5V
-65°C to +150°C
300°C

Soldering, 10 seconds)

Operating Conditions

	MIN	MAX	UNITS
Supply Voltage (V_{CC})	4.75	5.25	V
Ambient Temperature (T_A)	0	+70	°C
Logical "0" Input Voltage (Low)	0	0.8	V
Logical "1" Input Voltage (High)	2.0	5.5	V

AC Characteristics (Note 2)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Load Current, All Inputs	$V_{CC} = \text{Max}$, $V_{IN} = 0.45V$		-0.8	-1.6	mA
Leakage Current, All Inputs	$V_{CC} = \text{Max}$, $V_{IN} = 2.4V$			40	μA
Leakage Current, All Inputs	$V_{CC} = \text{Max}$, $V_{IN} = 5.5V$			1	mA
Level Output Voltage	$V_{CC} = \text{Min}$, $I_{OL} = 16 \text{ mA}$		0.35	0.45	V
Level Input Voltage	$V_{CC} = \text{Min}$			0.80	V
Level Input Voltage	$V_{CC} = \text{Min}$	2.0			V
Clamp Voltage	$V_{CC} = \text{Min}$, $I_{IN} = -12 \text{ mA}$		-0.8	-1.5	V
Capacitance	$V_{CC} = 5V$, $V_{IN} = 2V$, $T_A = 25^\circ C$, 1 MHz		4.0		pF
ut Capacitance	$V_{CC} = 5V$, $V_O = 2V$, $T_A = 25^\circ C$, 1 MHz, Output "OFF"		6.0		pF
Supply Current	$V_{CC} = \text{Max}$, All Inputs Grounded, All Outputs Open		115	145	mA

PARAMETERS

ut Short-Circuit Current	$V_O = 0V$, $V_{CC} = \text{Max}$	-15		-50	mA
ut Leakage	$V_{CC} = \text{Max}$, $V_O = 0.45 \text{ to } 2.4V$, Chip Disabled			+40	μA
ut Voltage High	$I_{OH} = -2 \text{ mA}$	2.4	3.2		V

AC Characteristics (With standard load) (Note 2)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ess Time					
Dot Clock to Output			35	55	ns
Output Enable			20	45	ns
Output Disable			20	45	ns
ut Up Time					
Load to Dot Clock		40	25		ns
Address to Load		350	200		ns
Clear to Load		350			ns
Control to Line Clock	See Switching Time Waveforms	40			ns
Line Clock to Load		950			ns
Address to Address Latch		40			ns
ld Time					

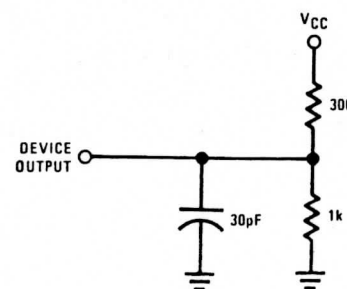
AC Electrical Characteristics (Continued) (With standard load) (Note 2)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
$TW1$ Minimum Pulse Width					
$TW2$ Line Clock		40			ns
$TW3$ Clear		40			ns
$TW4$ Dot Clock	See Switching Time Waveforms	30			ns
$TW5$ Load		40			ns
$TW5$ Address Latch		40			ns
f_{MAX} Maximum Clock Frequency		16	20		MHz

Note 1: Absolute maximum ratings are those values beyond which the device may be permanently damaged. They do not mean that the device may be operated at these values.

Note 2: These limits apply over the entire operating range unless stated otherwise. All typical values are for $V_{CC} = 5V$ and $T_A = 25^\circ C$.

Standard Test Load



■ Input waveforms are supplied by a pulse generator having the following characteristics: PRR = 1 MHz, $Z_{OUT} = 50 \Omega$, $t_r < 5 \text{ ns}$ and $t_f < 5 \text{ ns}$ (between 1.0V and 2.0V).

■ T_{DO} is measured with output enable at a steady low level.

Switching Time Waveforms

