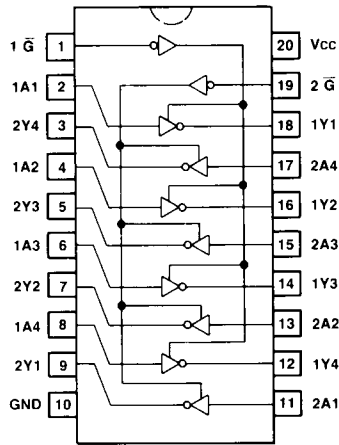


**Octal Buffer/Line Driver/Line Receiver
(Inverting 3-State Output)**

The LS240 is a bipolar, NPN, sealed-junction, silicon integrated circuit. It is manufactured in low-power Schottky technology and is available in a wire-bonded, 20-pin plastic DIP or surface mount package. These devices, with symmetrical inputs, are designed for use as memory address drivers, clock drivers, and bus-oriented receivers and transmitters. Inputs have hysteresis characteristics for enhanced noise immunity.



Electrical Characteristics

V_{CC} = 5.0 ±0.5 V, T_A = -55 to +125°C (WA-LS)
 V_{CC} = 5.0 ±0.25 V, T_A = 0 to 70°C (WP90351L8)
 V_{CC} = 5.0 ±0.5 V, T_A = -40 to +85°C (WA-LSD, WP91403L2)

Parameter	Symbol	WA-LS		WP, WA-LSD		Units
		Min	Max	Min	Max	
Output Voltage, V _{CC} = 4.5 V (WA-LS), 4.75 V (WP, WA-LSD)						
Low, I _{OL} = 12.0 mA	V _{OL}	—	0.4	—	0.4	V
I _{OL} = 24.0 mA	V _{OL}	—	0.5	—	0.5	V
High, I _{OH} = -3.0 mA	V _{OH}	2.4	—	2.4	—	V
I _{OH} = -15.0 mA	V _{OH}	2.0	—	2.0	—	V
Input Voltage, V _{CC} = 4.5 V (WA-LS), 4.75 V (WP, WA-LSD)						
Low	V _{IL}	—	0.7	—	0.8*	V
High	V _{IH}	2.0	7.5	2.0	5.5	V
Clamp, I _{IN} = -18.0 mA	V _{IK}	—	-1.5	—	-1.5	V
Input Current, V _{CC} = 5.5 V (WA-LS), 5.25 V (WP, WA-LSD)						
Low, V _{IL} = 0.4 V	I _{IL}	—	-0.2	—	-0.2	mA
High, V _{IH} = 2.7 V	I _{IH}	—	20.0	—	20.0	μA
@ V _I max, V _I = 7.0 V (WA-LS), 5.5 V (WP, WA-LSD)	I _I	—	0.1	—	0.1	mA
Output Current, V _{CC} = 5.5 V (WA-LS), 5.25 V (WP, WA-LSD)						
Off-State, V _{OL} = 0.4 V	I _{OZL}	—	-20.0	—	-20.0	μA
V _{OH} = 2.7 V	I _{OZH}	—	20.0	—	20.0	μA
Short-Circuit	I _{OS}	-40.0	-225.0	-40.0	-225.0	mA
Supply Current, V _{CC} = 5.5 V (WA-LS), 5.25 V (WP, WA-LSD)						
Output Low	I _{CCL}	—	44.0	—	44.0	mA
Output High	I _{CCH}	—	27.0	—	27.0	mA
Output Off	I _{CCD}	—	50.0	—	50.0	mA

* WA-LSD, WP91403L2: V_{IL} = 0.7 V

Timing Characteristics

VCC = 5.0 V, TA = 25°C

Parameter	Symbol	WA-LS		WP, WA-LSD		Units
		Min	Max	Min	Max	
Propagation Delay						
Input-to-Output						
Low-to-High*	tPLH	—	14.0	—	14.0	ns
High-to-Low*	tPHL	—	18.0	—	18.0	ns
Enable-to-Low*	tPZL	—	30.0	—	30.0	ns
Enable-to-High*	tPZH	—	23.0	—	23.0	ns
Disable-to-Low**	tPLZ	—	25.0	—	25.0	ns
Disable-to-High**	tPHZ	—	18.0	—	18.0	ns

* CL = 45 pF

** CL = 5 pF

Maximum Ratings

Power supply voltage (VCC).....	7.0 V
Operating temperature (TA).....	WA-LS: -55 to +125°C WP90351L8: 0 to 70°C WA-LSD, WP91403L2: -40 to +85°C
Storage temperature (Tstg).....	-65 to +150°C

Maximum ratings are defined as the limiting conditions that the user can apply to the device under all variations of circuit and environmental conditions. If any rating is exceeded, permanent damage to the device may result.

Bonding or soldering of the external leads of this device can be performed safely at temperatures up to 300°C.