

DM74AS832B Hex 2-Input OR Driver

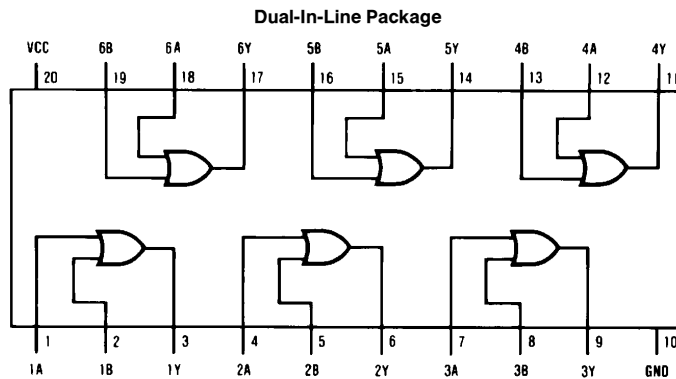
General Description

These devices contain six independent drivers, each of which performs the logic OR function. Each driver has increased output drive capability to allow the driving of high capacitive loads.

Features

- Switching specifications at 50 pF
- Switching specifications guaranteed over full temperature and V_{CC} range
- Advanced oxide-isolated, ion-implanted Schottky TTL process
- Functionally and pin for pin compatible with Schottky and low power Schottky TTL counterpart
- Improved AC performance over Schottky and low power Schottky counterparts

Connection Diagram



TL/F/6329-1

Order Number DM74AS832BWM or DM74AS832BN
See NS Package Number M20B or N20A

Function Table

$$Y = A + B$$

Inputs		Output
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	H

H = High Logic Level

L = Low Logic Level

Absolute Maximum Ratings

Supply Voltage	7V
Input Voltage	7V
Operating Free Air Temperature Range	0°C to +70°C
Storage Temperature Range	−65°C to +150°C
Typical θ_{JA}	
N Package	58.3°C/W
M Package	154.0°C/W

Note: The “Absolute Maximum Ratings” are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the “Electrical Characteristics” table are not guaranteed at the absolute maximum ratings. The “Recommended Operating Conditions” table will define the conditions for actual device operation.

Recommended Operating Conditions

Symbol	Parameter	Min	Nom	Max	Units
V_{CC}	Supply Voltage	4.5	5	5.5	V
V_{IH}	High Level Input Voltage	2			V
V_{IL}	Low Level Input Voltage			0.8	V
I_{OH}	High Level Output Current			−48	mA
I_{OL}	Low Level Output Current			48	mA
T_A	Free Air Operating Temperature	0		70	°C

Electrical Characteristics

over recommended operating free air temperature range. All typical values are measured at $V_{CC} = 5V$, $T_A = 25^\circ C$.

Symbol	Parameter	Conditions	Min	Typ	Max	Units	
V_{IK}	Input Clamp Voltage	$V_{CC} = 4.5V$, $I_I = -18\text{ mA}$			−1.2	V	
V_{OH}	High Level Output Voltage	$I_{OH} = -2\text{ mA}$, $V_{CC} = 4.5V\text{ to }5.5V$	$V_{CC} - 2$			V	
		$I_{OH} = -3\text{ mA}$, $V_{CC} = 4.5V$	2.4				
		$I_{OH} = \text{Max}$, $V_{CC} = 4.5V$	2				
V_{OL}	Low Level Output Voltage	$V_{CC} = 4.5V$, $I_{OL} = \text{Max}$		0.35	0.5	V	
I_I	Input Current at Max Input Voltage	$V_{CC} = 5.5V$, $V_{IH} = 7V$			0.1	mA	
I_{IH}	High Level Input Current	$V_{CC} = 5.5V$, $V_{IH} = 2.7V$			20	μA	
I_{IL}	Low Level Input Current	$V_{CC} = 5.5V$, $V_{IL} = 0.4V$			−0.5	mA	
I_O	Output Drive Current	$V_{CC} = 5.5V$, $V_O = 2.25V$	−50	−135	−200	mA	
I_{CC}	Supply Current	$V_{CC} = 5.5V$	Outputs High		11	17	mA
			Outputs Low		22	36	mA

Switching Characteristics

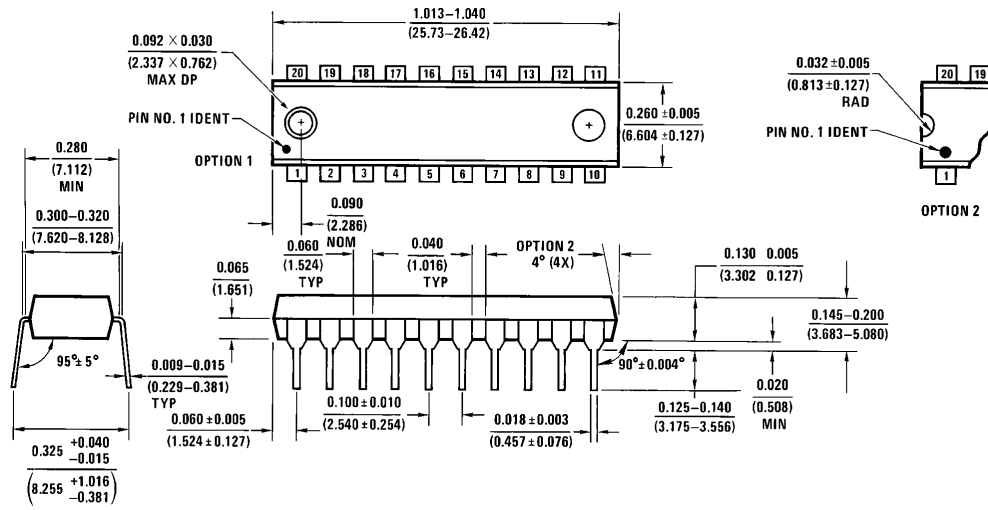
over recommended operating free air temperature range (Note 1)

Symbol	Parameter	Conditions	Min	Max	Units
t_{PLH}	Propagation Delay Time Low to High Level Output	$V_{CC} = 4.5V\text{ to }5.5V$ $R_L = 500\Omega$ $C_L = 50\text{ pF}$	1	6.3	ns
t_{PHL}	Propagation Delay Time High to Low Level Output		1	6.3	ns

Note 1: See Section 5 for test waveforms and output load.

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Physical Dimensions inches (millimeters) (Continued)



Molded Dual-In-Line Package (N)
Order Number DM74AS832BN
NS Package Number N20A

N20A (REV G)

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National Semiconductor Corporation
 1111 West Bardin Road
 Arlington, TX 76017
 Tel: 1(800) 272-9959
 Fax: 1(800) 737-7018

National Semiconductor Europe
 Fax: (+49) 0-180-530 85 86
 Email: cnjwge@tevm2.nsc.com
 Deutsch Tel: (+49) 0-180-530 85 85
 English Tel: (+49) 0-180-532 78 32
 Français Tel: (+49) 0-180-532 93 58
 Italiano Tel: (+49) 0-180-534 16 80

National Semiconductor Hong Kong Ltd.
 19th Floor, Straight Block,
 Ocean Centre, 5 Canton Rd.
 Tsimshatsui, Kowloon
 Hong Kong
 Tel: (852) 2737-1600
 Fax: (852) 2736-9960

National Semiconductor Japan Ltd.
 Tel: 81-043-299-2309
 Fax: 81-043-299-2408

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