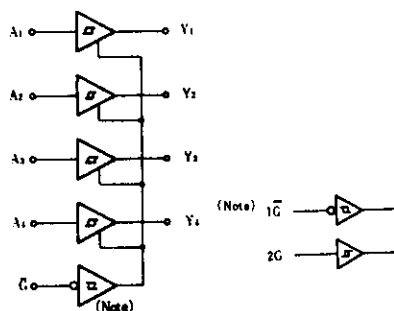


HD74LS241

● Octal Buffers/Line Drivers/Line Receivers

(non inverted three-state outputs)

■ BLOCK DIAGRAM (1/2)

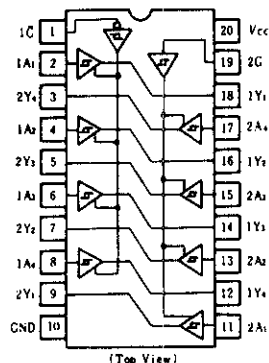


■ FUNCTION TABLE

Inputs			Output
1G	2G	A	Y
H	L	X	Z
L	H	H	H
L	H	L	L

Note) H; high level,
L; low level,
X; irrelevant
Z; off (high-impedance) state
of a 3-state output

■ PIN ARRANGEMENT



■ ELECTRICAL CHARACTERISTICS (Ta = -20 ~ +75°C)

Item	Symbol	Test Conditions	min	typ*	max	Unit
Input voltage	V _{IH}		2.0	—	—	V
	V _{IL}		—	—	0.8	V
Hysteresis	V _{T+} - V _{T-}	V _{CC} = 4.75V	0.2	0.4	—	V
Output voltage	V _{OH}	V _{CC} = 4.75V, V _{IH} = 2V, V _{IL} = 0.8V, I _{OH} = -3mA	2.4	—	—	V
		V _{CC} = 4.75V, V _{IH} = 2V, V _{IL} = 0.5V, I _{OH} = -15mA	2.0	—	—	V
	V _{OL}	V _{CC} = 4.75V, V _{IH} = 2V, I _{OL} = 12mA	—	—	0.4	V
		V _{IL} = 0.8V, I _{OL} = 24mA	—	—	0.5	V
Output current	I _{OZH}	V _{CC} = 5.25V, V _{IH} = 2V, V _O = 2.7V	—	—	20	μA
	I _{OZL}	V _{IL} = 0.8V, V _O = 0.4V	—	—	-20	μA
Input current	I _{IH}	V _{CC} = 5.25V, V _I = 2.7V	—	—	20	μA
	I _{IL}	V _{CC} = 5.25V, V _I = 0.4V	—	—	-0.2	mA
	I _I	V _{CC} = 5.25V, V _I = 7V	—	—	0.1	mA
Short-circuit output current	I _{OS}	V _{CC} = 5.25V	-40	—	-225	mA
Supply current**	Outputs high	V _{CC} = 5.25V	—	13	23	mA
	Outputs low		—	27	46	
	All outputs disabled		—	32	54	
Input clamp voltage	V _{IK}	V _{CC} = 4.75V, I _{IN} = -18mA	—	—	-1.5	V

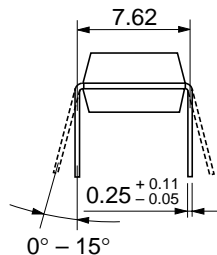
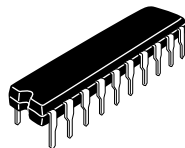
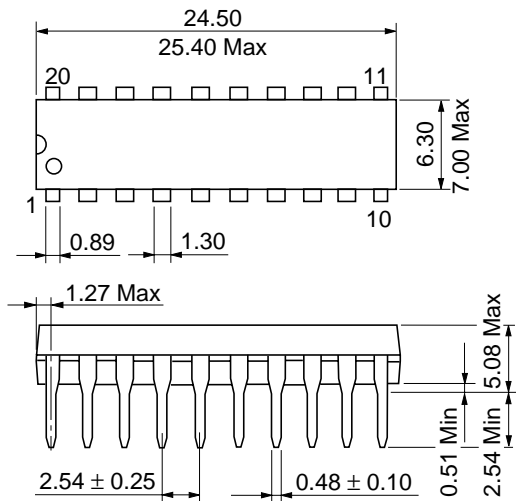
* V_{CC} = 5V, T_a = 25°C

** I_{CC} is measured with all outputs open.

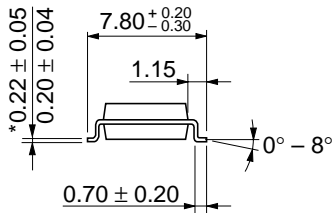
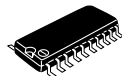
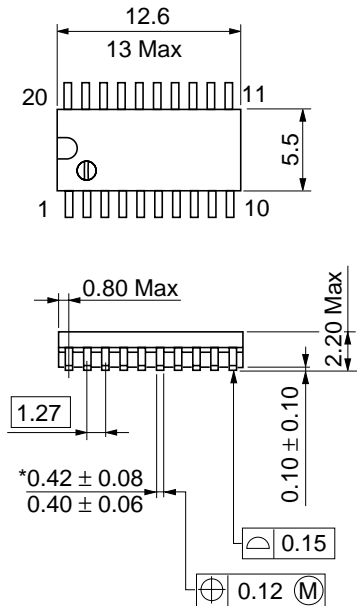
■ SWITCHING CHARACTERISTICS (V_{CC} = 5V, T_a = 25°C)

Item	Symbol	Test Conditions	min	typ	max	Unit
Propagation delay time	t _{PLH}	C _L = 45pF, R _L = 667Ω	—	12	18	ns
	t _{PHL}		—	12	18	
Output enable time	t _{ZL}		—	20	30	ns
	t _{ZH}		—	15	23	
Output disable time	t _{LZ}	C _L = 5pF, R _L = 667Ω	—	15	25	ns
	t _{HZ}		—	10	18	ns

Note) Refer to Test Circuit and Waveform of the Common Item

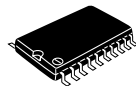
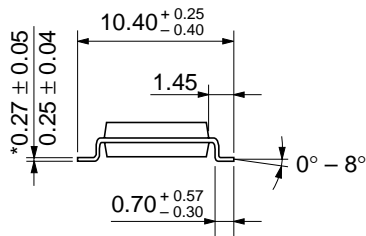
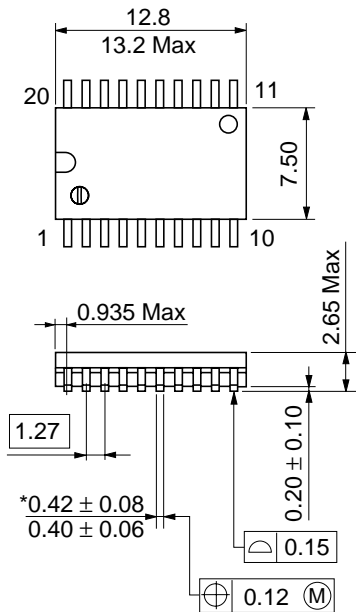


Hitachi Code	DP-20N
JEDEC	—
EIAJ	Conforms
Weight (reference value)	1.26 g



*Dimension including the plating thickness
Base material dimension

Hitachi Code	FP-20DA
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.31 g



Hitachi Code	FP-20DB
JEDEC	Conforms
EIAJ	—
Weight (reference value)	0.52 g

*Dimension including the plating thickness
Base material dimension

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