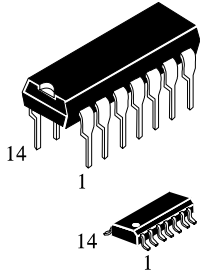


**QUAD 2-INPUT NOR LINE DRIVER**

**KK74128**

This device contains four independent 2-input-NOR line drivers. It performs the Boolean function  $Y = \overline{A+B}$  or  $Y = \overline{A}*\overline{B}$ . The **KK74128** is designed to drive 50 ohm lines.

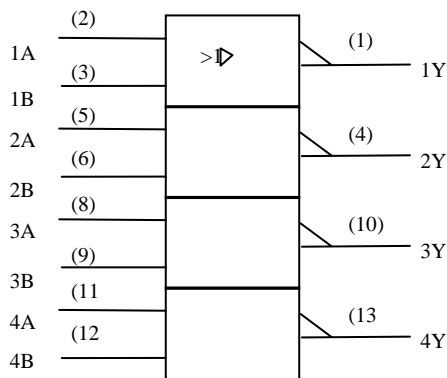
The **KK74128** is characterized for operation from 0C° to 70 °C.



N SUFFIX PLASTIC  
D SUFFIX SOIC

**ORDERING INFORMATION**  
 KK74128N Plastic  
 KK74128D SOIC  
 T<sub>A</sub> = -10° to 70° C for all packages

**Logic Symbol**



**Logic Diagram (Positive Logic)**



**ABSOLUTE MAXIMUM RATINGS OVER OPERATING FREE-AIR TEMPERATURE RANGE**

Supply voltage, V <sub>cc</sub> ( see Note 1)	7 V
Input voltage	5.5 V
Operating free-air temperature range, T <sub>A</sub>	0°C to 70°C.
Storage temperature range	-65°C to 150°C

NOTES: 1. Voltage values are with respect to network ground terminal.

**RECOMMENDED OPERATING CONDITIONS**

		MIN	NOM	MAX	UNIT
V <sub>CC</sub>	Supply voltage	4.75	5	5.25	V
V <sub>IH</sub>	High-level input voltage	2			V
V <sub>IL</sub>	Low-level input voltage			0.8	V
I <sub>OH</sub>	High-level output current			-42.4	V
I <sub>OL</sub>	Low-level output current			48	mA
T <sub>A</sub>	Operating free-air temperature	0		70	°C

**ELECTRICAL CHARACTERISTICS OVER RECOMMENDED OPERATING FREE-AIR TEMPERATURE RANGE**

Parameter	Test Conditions*	MIN	TYP**	MAX	UNIT
V <sub>IK</sub>	V <sub>CC</sub> = MIN I <sub>I</sub> = -12mA			-1.5	V
V <sub>OH</sub>	V <sub>CC</sub> = MIN V <sub>IL</sub> = 0.8V, I <sub>OH</sub> = -2.4mA	2.4	3.4		V
	V <sub>CC</sub> = MIN V <sub>IL</sub> = 0.4V, I <sub>OH</sub> = -13.2mA	2.4			
	V <sub>CC</sub> = MIN V <sub>IL</sub> = 0.4V, I <sub>OH</sub> = MAX	2			
V <sub>OL</sub>	V <sub>CC</sub> = MIN V <sub>IH</sub> = 2V I <sub>OL</sub> = 48 mA		0.26	0.4	V
I <sub>I</sub>	V <sub>CC</sub> = MAX V <sub>I</sub> = 5.5V			1	m
I <sub>IH</sub>	V <sub>CC</sub> = MAX V <sub>I</sub> = 2.4V			40	A
I <sub>IL</sub>	V <sub>CC</sub> = MAX V <sub>I</sub> = 0.4V			-1.6	m
I <sub>OS</sub> ***	V <sub>CC</sub> = MAX	-70		-180	mA
I <sub>CCH</sub>	V <sub>CC</sub> = MAX		12	21	m
I <sub>CCL</sub>	V <sub>CC</sub> = MAX		33	57	mA

\*- For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions

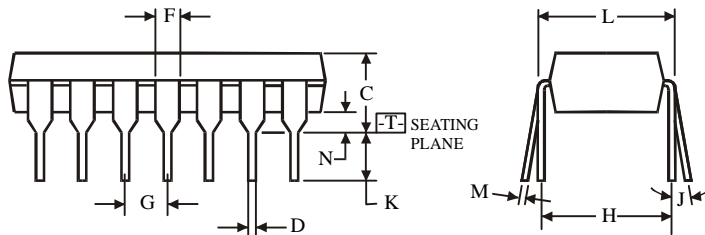
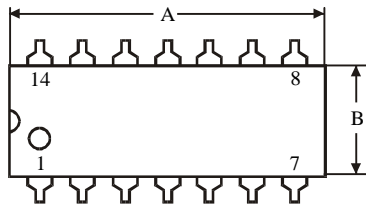
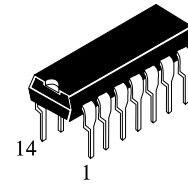
\*\* - All typical values are at V<sub>CC</sub>=5V, T<sub>A</sub>=25°C

\*\*\* - Not more than one output should be shorted at a time.

**SWITCHING CHARACTERISTICS, V<sub>CC</sub> = 5V, T<sub>A</sub> = 25°C**

Parameter	From (input)	To (output)	Test Conditions	TYP	MAX	UNIT
t <sub>PLH</sub>	A or B	Y	R <sub>L</sub> = 133 C <sub>L</sub> = 50 pF	6	9	ns
t <sub>PHL</sub>				8	12	ns
t <sub>PLH</sub>			R <sub>L</sub> = 133 C <sub>L</sub> = 150 pF	10	15	ns
t <sub>PHL</sub>				12	18	ns

**N SUFFIX PLASTIC DIP  
(MS - 001AA)**



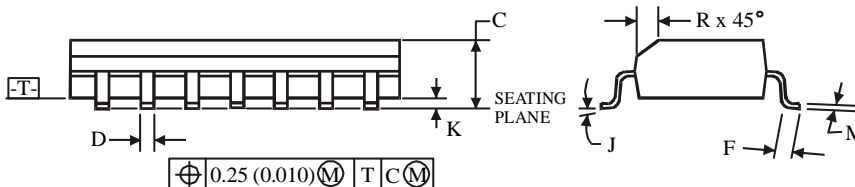
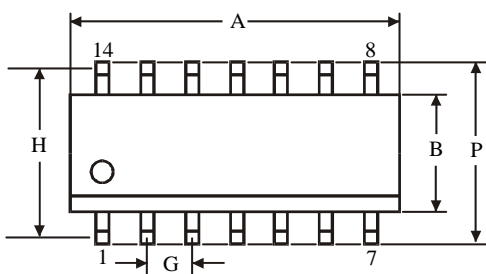
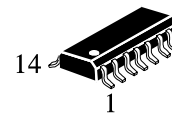
$\oplus 0.25 (0.010) \text{ (M) T}$

**NOTES:**

- Dimensions "A", "B" do not include mold flash or protrusions.  
Maximum mold flash or protrusions 0.25 mm (0.010) per side.

Symbol	Dimension, mm	
	MIN	MAX
A	18.67	19.69
B	6.1	7.11
C		5.33
D	0.36	0.56
F	1.14	1.78
G	2.54	
H	7.62	
J	0°	10°
K	2.92	3.81
L	7.62	8.26
M	0.2	0.36
N	0.38	

**D SUFFIX SOIC  
(MS - 012AB)**



$\oplus 0.25 (0.010) \text{ (M) T C (M)}$

**NOTES:**

- Dimensions A and B do not include mold flash or protrusion.
- Maximum mold flash or protrusion 0.15 mm (0.006) per side for A; for B - 0.25 mm (0.010) per side.

Symbol	Dimension, mm	
	MIN	MAX
A	8.55	8.75
B	3.8	4
C	1.35	1.75
D	0.33	0.51
F	0.4	1.27
G	1.27	
H	5.27	
J	0°	8°
K	0.1	0.25
M	0.19	0.25
P	5.8	6.2
R	0.25	0.5