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Jameco Part Number 816149

SN5430, SN54LS30, SN54S30  
 SN7430, SN74LS30, SN74S30  
**8-INPUT POSITIVE-NAND GATES**  
 SDLS099 – DECEMBER 1983 – REVISED MARCH 1988

- Package Options Include Plastic "Small Outline" Packages, Ceramic Chip Carriers and Flat Packages, and Plastic and Ceramic DIPs
- Dependable Texas Instruments Quality and Reliability

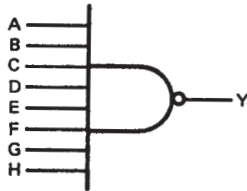
**description**

These devices contain a single 8-input NAND gate.  
 The SN5430, SN54LS30, and SN54S30 are characterized for operation over the full military range of -55°C to 125°C. The SN7430, SN74LS30, and SN74S30 are characterized for operation from 0°C to 70°C.

**FUNCTION TABLE**

| INPUTS A THRU H      | OUTPUT Y |
|----------------------|----------|
| All inputs H         | L        |
| One or more inputs L | H        |

**logic diagram**

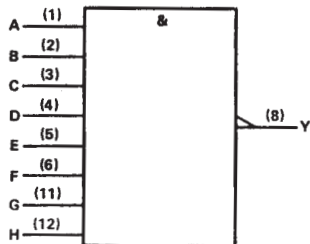


**positive logic**

$$Y = \overline{A \cdot B \cdot C \cdot D \cdot E \cdot F \cdot G \cdot H} \text{ or}$$

$$Y = \overline{A} + \overline{B} + \overline{C} + \overline{D} + \overline{E} + \overline{F} + \overline{G} + \overline{H}$$

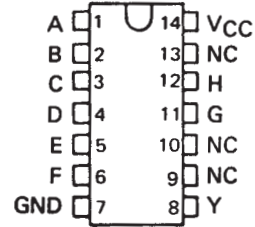
**logic symbol†**



†This symbol is in accordance with ANSI/IEEE Std 91-1984 and IEC Publication 617-12.  
 Pin numbers shown are for D, J, N, and W packages.

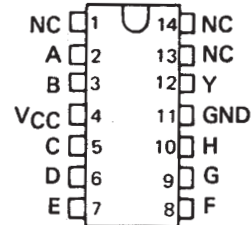
SN5430 . . . J PACKAGE  
 SN54LS30, SN54S30 . . . J OR W PACKAGE  
 SN7430 . . . N PACKAGE  
 SN74LS30, SN74S30 . . . D OR N PACKAGE

(TOP VIEW)



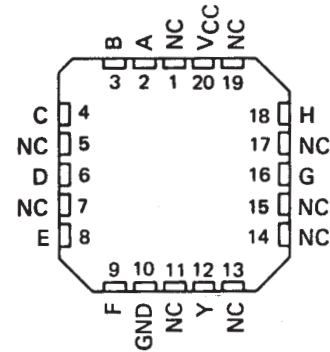
SN5430 . . . W PACKAGE

(TOP VIEW)



SN54LS30, SN54S30 . . . FK PACKAGE

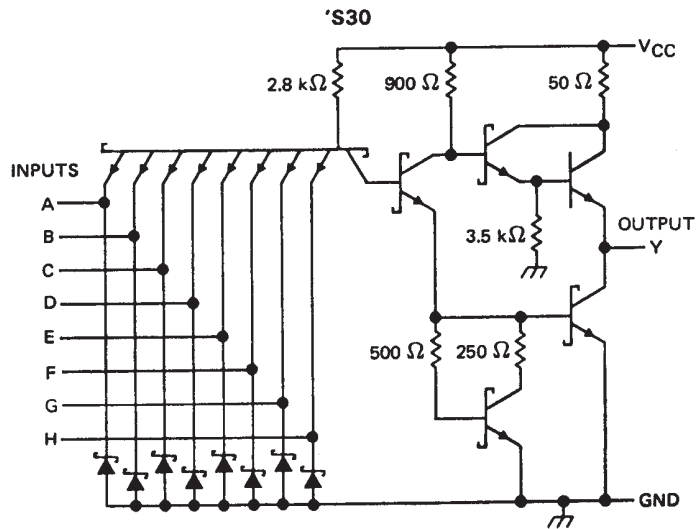
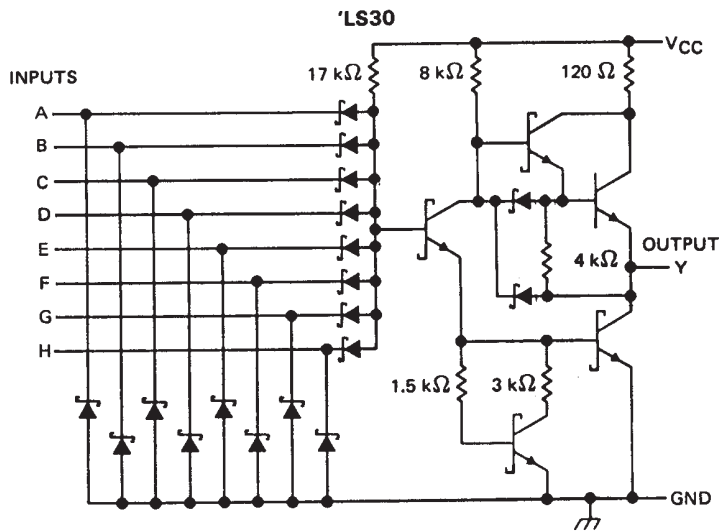
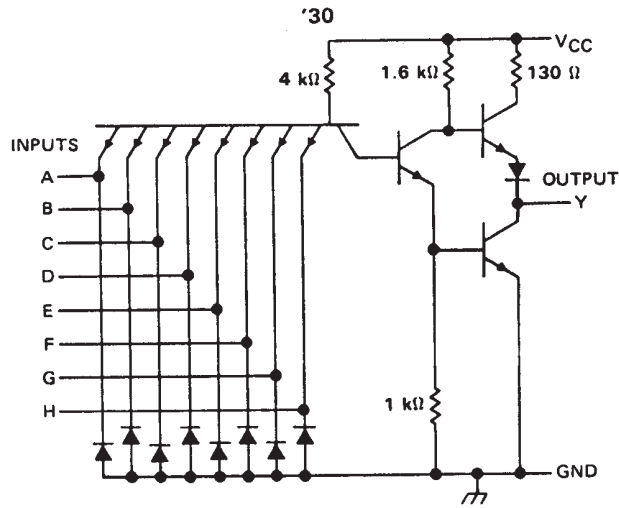
(TOP VIEW)



NC - No internal connection

SN5430, SN54LS30, SN54S30  
 SN7430, SN74LS30, SN74S30  
 8-INPUT POSITIVE-NAND GATES  
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schematics (each gate)



Resistor values shown are nominal.



**absolute maximum ratings over operating free-air temperature range (unless otherwise noted)**

|  |                  |
|--|------------------|
| Supply voltage, $V_{CC}$ (see Note 1) .....        | 7 V              |
| Input voltage .....                                | 5.5 V            |
| Operating free-air temperature range: SN5430 ..... | –55 °C to 125 °C |
| SN7430 .....                                       | 0 °C to 70 °C    |
| Storage temperature range .....                    | –65 °C to 150 °C |

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

**recommended operating conditions**

|                                      | SN5430 |     |      | SN7430 |     |      | UNIT |
|--------------------------------------|--------|-----|------|--------|-----|------|------|
|                                      | MIN    | NOM | MAX  | MIN    | NOM | MAX  |      |
| $V_{CC}$ Supply voltage              | 4.5    | 5   | 5.5  | 4.75   | 5   | 5.25 | V    |
| $V_{IH}$ High-level input voltage    | 2      |     |      | 2      |     |      | V    |
| $V_{IL}$ Low-level input voltage     |        |     | 0.8  |        |     | 0.8  | V    |
| $I_{OH}$ High-level output current   |        |     | –0.4 |        |     | –0.4 | mA   |
| $I_{OL}$ Low-level output current    |        |     | 16   |        |     | 16   | mA   |
| $T_A$ Operating free-air temperature | –55    |     | 125  | 0      |     | 70   | °C   |

**electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)**

| PARAMETER  | TEST CONDITIONS †   | SN5430 |       |      | SN7430 |       |      | UNIT |
|------------|---|--------|-------|------|--------|-------|------|------|
|            |   | MIN    | TYP ‡ | MAX  | MIN    | TYP ‡ | MAX  |      |
| $V_{IK}$   | $V_{CC} = \text{MIN}, I_I = -12 \text{ mA}$                             |        |       | –1.5 |        |       | –1.5 | V    |
| $V_{OH}$   | $V_{CC} = \text{MIN}, V_{IL} = 0.8 \text{ V}, I_{OH} = -0.4 \text{ mA}$ | 2.4    | 3.4   |      | 2.4    | 3.4   |      | V    |
| $V_{OL}$   | $V_{CC} = \text{MIN}, V_{IH} = 2 \text{ V}, I_{OL} = 16 \text{ mA}$     |        | 0.2   | 0.4  |        | 0.2   | 0.4  | V    |
| $I_I$      | $V_{CC} = \text{MAX}, V_I = 5.5 \text{ V}$                              |        |       | 1    |        |       | 1    | mA   |
| $I_{IH}$   | $V_{CC} = \text{MAX}, V_I = 2.4 \text{ V}$                              |        |       | 40   |        |       | 40   | µA   |
| $I_{IL}$   | $V_{CC} = \text{MAX}, V_I = 0.4 \text{ V}$                              |        |       | –1.6 |        |       | –1.6 | mA   |
| $I_{OS} §$ | $V_{CC} = \text{MAX}$   | –20    |       | –55  | –18    |       | –55  | mA   |
| $I_{CCH}$  | $V_{CC} = \text{MAX}, V_I = 0$  |        | 1     | 2    |        | 1     | 2    | mA   |
| $I_{CCL}$  | $V_{CC} = \text{MAX}, V_I = 4.5 \text{ V}$                              |        | 3     | 6    |        | 3     | 6    | mA   |

† For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions.

‡ All typical values are at  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$ .

§ Not more than one output should be shorted at a time.

**switching characteristics,  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$  (see note 2)**

| PARAMETER | FROM (INPUT) | TO (OUTPUT) | TEST CONDITIONS                         | MIN | TYP | MAX | UNIT |
|-----------|--------------|-------------|---|-----|-----|-----|------|
| $t_{PLH}$ | Any          | Y           | $R_L = 400 \Omega, C_L = 15 \text{ pF}$ |     | 13  | 22  | ns   |
| $t_{PHL}$ |              |             |   |     | 8   | 15  | ns   |

NOTE 2: Load circuits and voltage waveforms are shown in Section 1.

**SN5430, SN54LS30, SN54S30  
SN7430, SN74LS30, SN74S30  
8-INPUT POSITIVE-NAND GATES**

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**absolute maximum ratings over operating free-air temperature range (unless otherwise noted)**

|  |                |
|--|----------------|
| Supply voltage, $V_{CC}$ (see Note 1) .....          | 7 V            |
| Input voltage .....                                  | 7 V            |
| Operating free-air temperature range: SN54LS30 ..... | -55°C to 125°C |
| SN74LS30 .....                                       | 0°C to 70°C    |
| Storage temperature range .....                      | -65°C to 150°C |

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

**recommended operating conditions**

|                                      | SN54LS30 |     |      | SN74LS30 |     |      | UNIT |
|--------------------------------------|----------|-----|------|----------|-----|------|------|
|                                      | MIN      | NOM | MAX  | MIN      | NOM | MAX  |      |
| $V_{CC}$ Supply voltage              | 4.5      | 5   | 5.5  | 4.75     | 5   | 5.25 | V    |
| $V_{IH}$ High-level input voltage    | 2        |     |      | 2        |     |      | V    |
| $V_{IL}$ Low-level input voltage     |          |     | 0.7  |          |     | 0.8  | V    |
| $I_{OH}$ High-level output current   |          |     | -0.4 |          |     | -0.4 | mA   |
| $I_{OL}$ Low-level output current    |          |     | 4    |          |     | 8    | mA   |
| $T_A$ Operating free-air temperature | -55      |     | 125  | 0        |     | 70   | °C   |

**electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)**

| PARAMETER | TEST CONDITIONS †  | SN54LS30 |      |      | SN74LS30 |      |      | UNIT |
|-----------|--|----------|------|------|----------|------|------|------|
|           |  | MIN      | TYP‡ | MAX  | MIN      | TYP‡ | MAX  |      |
| $V_{IK}$  | $V_{CC} = \text{MIN}, I_I = -18 \text{ mA}$                          |          |      | -1.5 |          |      | -1.5 | V    |
| $V_{OH}$  | $V_{CC} = \text{MIN}, V_{IL} = \text{MAX}, I_{OH} = -0.4 \text{ mA}$ | 2.5      | 3.4  |      | 2.7      | 3.4  |      | V    |
| $V_{OL}$  | $V_{CC} = \text{MIN}, V_{IH} = 2 \text{ V}, I_{OL} = 4 \text{ mA}$   | 0.25     | 0.4  |      |          |      | 0.4  | V    |
|           | $V_{CC} = \text{MIN}, V_{IH} = 2 \text{ V}, I_{OL} = 8 \text{ mA}$   |          |      |      | 0.25     | 0.5  |      |      |
| $I_I$     | $V_{CC} = \text{MAX}, V_I = 7 \text{ V}$                             |          |      | 0.1  |          |      | 0.1  | mA   |
| $I_{IH}$  | $V_{CC} = \text{MAX}, V_I = 2.7 \text{ V}$                           |          |      | 20   |          |      | 20   | μA   |
| $I_{IL}$  | $V_{CC} = \text{MAX}, V_I = 0.4 \text{ V}$                           |          |      | -0.4 |          |      | -0.4 | mA   |
| $I_{OS}§$ | $V_{CC} = \text{MAX}$  | -20      |      | -100 | -20      |      | -100 | mA   |
| $I_{CCH}$ | $V_{CC} = \text{MAX}, V_I = 0$                                       | 0.35     | 0.5  |      | 0.35     | 0.5  |      | mA   |
| $I_{CCL}$ | $V_{CC} = \text{MAX}, V_I = 4.5 \text{ V}$                           | 0.6      | 1.1  |      | 0.6      | 1.1  |      | mA   |

† For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions.

‡ All typical values are at  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$

§ Not more than one output should be shorted at a time, and the duration of the short-circuit should not exceed one second.

**switching characteristics,  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$  (see note 2)**

| PARAMETER | FROM (INPUT) | TO (OUTPUT) | TEST CONDITIONS                                | MIN | TYP | MAX | UNIT |
|-----------|--------------|-------------|--|-----|-----|-----|------|
| $t_{PLH}$ | Any          | Y           | $R_L = 2 \text{ k}\Omega, C_L = 15 \text{ pF}$ |     | 8   | 15  | ns   |
| $t_{PHL}$ |              |             |  |     | 13  | 20  | ns   |

NOTE 2: Load circuits and voltage waveforms are shown in Section 1.



**absolute maximum ratings over operating free-air temperature range (unless otherwise noted)**

|   |                  |
|---|------------------|
| Supply voltage, $V_{CC}$ (see Note 1) .....         | 7 V              |
| Input voltage .....                                 | 5.5 V            |
| Operating free-air temperature range: SN54S30 ..... | –55 °C to 125 °C |
| SN74S30 .....                                       | 0 °C to 70 °C    |
| Storage temperature range .....                     | –65 °C to 150 °C |

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

**recommended operating conditions**

|                                      | SN54S30 |     |     | SN74S30 |     |      | UNIT |
|--------------------------------------|---------|-----|-----|---------|-----|------|------|
|                                      | MIN     | NOM | MAX | MIN     | NOM | MAX  |      |
| $V_{CC}$ Supply voltage              | 4.5     | 5   | 5.5 | 4.75    | 5   | 5.25 | V    |
| $V_{IH}$ High-level input voltage    | 2       |     |     | 2       |     |      | V    |
| $V_{IL}$ Low-level input voltage     |         |     | 0.8 |         |     | 0.8  | V    |
| $I_{OH}$ High-level output current   |         |     | –1  |         |     | –1   | mA   |
| $I_{OL}$ Low-level output current    |         |     | 20  |         |     | 20   | mA   |
| $T_A$ Operating free-air temperature | –55     |     | 125 | 0       |     | 70   | °C   |

**electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)**

| PARAMETER  | TEST CONDITIONS †   | SN54S30 |       |      | SN74S30 |       |      | UNIT |
|------------|---|---------|-------|------|---------|-------|------|------|
|            |   | MIN     | TYP ‡ | MAX  | MIN     | TYP ‡ | MAX  |      |
| $V_{IK}$   | $V_{CC} = \text{MIN}, I_I = -18 \text{ mA}$                           |         |       | –1.2 |         |       | –1.2 | V    |
| $V_{OH}$   | $V_{CC} = \text{MIN}, V_{IL} = 0.8 \text{ V}, I_{OH} = -1 \text{ mA}$ | 2.5     | 3.4   |      | 2.7     | 3.4   |      | V    |
| $V_{OL}$   | $V_{CC} = \text{MIN}, V_{IH} = 2 \text{ V}, I_{OL} = 20 \text{ mA}$   |         |       | 0.5  |         |       | 0.5  | V    |
| $I_I$      | $V_{CC} = \text{MAX}, V_I = 5.5 \text{ V}$                            |         |       | 1    |         |       | 1    | mA   |
| $I_{IH}$   | $V_{CC} = \text{MAX}, V_I = 2.7 \text{ V}$                            |         |       | 50   |         |       | 50   | µA   |
| $I_{IL}$   | $V_{CC} = \text{MAX}, V_I = 0.5 \text{ V}$                            |         |       | –2   |         |       | –2   | mA   |
| $I_{OS} §$ | $V_{CC} = \text{MAX}$   | –40     |       | –100 | –40     |       | –100 | mA   |
| $I_{CCH}$  | $V_{CC} = \text{MAX}, V_I = 0$  |         | 3     | 5    |         | 3     | 5    | mA   |
| $I_{CCL}$  | $V_{CC} = \text{MAX}, V_I = 4.5 \text{ V}$                            |         | 5.5   | 10   |         | 5.5   | 10   | mA   |

† For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions.

‡ All typical values are at  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$ .

§ Not more than one output should be shorted at a time, and the duration of the short-circuit should not exceed one second.

**switching characteristics,  $V_{CC} = 5 \text{ V}, T_A = 25^\circ\text{C}$  (see note 2)**

| PARAMETER | FROM (INPUT) | TO (OUTPUT) | TEST CONDITIONS                         | MIN | TYP | MAX | UNIT |
|-----------|--------------|-------------|---|-----|-----|-----|------|
| $t_{PLH}$ | Any          | Y           | $R_L = 280 \Omega, C_L = 15 \text{ pF}$ |     | 4   | 6   | ns   |
| $t_{PHL}$ |              |             |   |     | 4.5 | 7   | ns   |
| $t_{PLH}$ |              |             | $R_L = 280 \Omega, C_L = 50 \text{ pF}$ |     | 5.5 |     | ns   |
| $t_{PHL}$ |              |             |   |     | 6.5 |     | ns   |

NOTE 2: Load circuits and voltage waveforms are shown in Section 1.

**PACKAGING INFORMATION**

| Orderable Device | Status <sup>(1)</sup> | Package Type | Package Drawing | Pins | Package Qty | Eco Plan <sup>(2)</sup> | Lead/Ball Finish | MSL Peak Temp <sup>(3)</sup> |
|------------------|-----------------------|--------------|-----------------|------|-------------|-------------------------|------------------|------------------------------|
| 5962-9679201Q2A  | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| 5962-9679201QCA  | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| 5962-9679201QCA  | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| 5962-9679201QDA  | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| 5962-9679201QDA  | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| JM38510/30009B2A | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| JM38510/30009B2A | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| JM38510/30009BCA | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| JM38510/30009BCA | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| JM38510/30009BDA | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| JM38510/30009BDA | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| JM38510/30009SCA | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| JM38510/30009SCA | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| JM38510/30009SDA | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| JM38510/30009SDA | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SN5430J          | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN5430J          | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN54LS30J        | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN54LS30J        | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN54S30J         | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN54S30J         | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SN7430N          | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN7430N          | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74LS30D        | ACTIVE                | SOIC         | D               | 14   | 50          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30D        | ACTIVE                | SOIC         | D               | 14   | 50          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DE4      | ACTIVE                | SOIC         | D               | 14   | 50          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DE4      | ACTIVE                | SOIC         | D               | 14   | 50          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DR       | ACTIVE                | SOIC         | D               | 14   | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DR       | ACTIVE                | SOIC         | D               | 14   | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DRE4     | ACTIVE                | SOIC         | D               | 14   | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30DRE4     | ACTIVE                | SOIC         | D               | 14   | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30J        | OBSOLETE              | CDIP         | J               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74LS30J        | OBSOLETE              | CDIP         | J               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74LS30N        | ACTIVE                | PDIP         | N               | 14   | 25          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| SN74LS30N        | ACTIVE                | PDIP         | N               | 14   | 25          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |

| Orderable Device | Status <sup>(1)</sup> | Package Type | Package Drawing | Pins | Package Qty | Eco Plan <sup>(2)</sup> | Lead/Ball Finish | MSL Peak Temp <sup>(3)</sup> |
|------------------|-----------------------|--------------|-----------------|------|-------------|-------------------------|------------------|------------------------------|
| SN74LS30N3       | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74LS30N3       | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74LS30NE4      | ACTIVE                | PDIP         | N               | 14   | 25          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| SN74LS30NE4      | ACTIVE                | PDIP         | N               | 14   | 25          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| SN74LS30NSR      | ACTIVE                | SO           | NS              | 14   | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30NSR      | ACTIVE                | SO           | NS              | 14   | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30NSRE4    | ACTIVE                | SO           | NS              | 14   | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74LS30NSRE4    | ACTIVE                | SO           | NS              | 14   | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| SN74S30D         | OBSOLETE              | SOIC         | D               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30D         | OBSOLETE              | SOIC         | D               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30DR        | OBSOLETE              | SOIC         | D               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30DR        | OBSOLETE              | SOIC         | D               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30J         | OBSOLETE              | CDIP         | J               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30J         | OBSOLETE              | CDIP         | J               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30N         | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SN74S30N         | OBSOLETE              | PDIP         | N               | 14   |             | TBD                     | Call TI          | Call TI                      |
| SNJ5430J         | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ5430J         | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ5430W         | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SNJ5430W         | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SNJ54LS30FK      | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| SNJ54LS30FK      | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| SNJ54LS30J       | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ54LS30J       | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ54LS30W       | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SNJ54LS30W       | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SNJ54S30FK       | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| SNJ54S30FK       | ACTIVE                | LCCC         | FK              | 20   | 1           | TBD                     | POST-PLATE       | N / A for Pkg Type           |
| SNJ54S30J        | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ54S30J        | ACTIVE                | CDIP         | J               | 14   | 1           | TBD                     | A42 SNPB         | N / A for Pkg Type           |
| SNJ54S30W        | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |
| SNJ54S30W        | ACTIVE                | CFP          | W               | 14   | 1           | TBD                     | A42              | N / A for Pkg Type           |

<sup>(1)</sup> The marketing status values are defined as follows:

**ACTIVE:** Product device recommended for new designs.

**LIFEBUY:** TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

**NRND:** Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

**PREVIEW:** Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

<sup>(2)</sup> Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check

<http://www.ti.com/productcontent> for the latest availability information and additional product content details.

**TBD:** The Pb-Free/Green conversion plan has not been defined.

**Pb-Free (RoHS):** TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

**Pb-Free (RoHS Exempt):** This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

**Green (RoHS & no Sb/Br):** TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

<sup>(3)</sup> MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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# J (R-GDIP-T\*\*)

14 LEADS SHOWN

# CERAMIC DUAL IN-LINE PACKAGE



| DIM \ PINS ** | 14                     | 16                     | 18                     | 20                     |
|---------------|------------------------|------------------------|------------------------|------------------------|
| A             | 0.300<br>(7,62)<br>BSC | 0.300<br>(7,62)<br>BSC | 0.300<br>(7,62)<br>BSC | 0.300<br>(7,62)<br>BSC |
| B MAX         | 0.785<br>(19,94)       | .840<br>(21,34)        | 0.960<br>(24,38)       | 1.060<br>(26,92)       |
| B MIN         | —                      | —                      | —                      | —                      |
| C MAX         | 0.300<br>(7,62)        | 0.300<br>(7,62)        | 0.310<br>(7,87)        | 0.300<br>(7,62)        |
| C MIN         | 0.245<br>(6,22)        | 0.245<br>(6,22)        | 0.220<br>(5,59)        | 0.245<br>(6,22)        |



4040083/F 03/03

- NOTES:
- All linear dimensions are in inches (millimeters).
  - This drawing is subject to change without notice.
  - This package is hermetically sealed with a ceramic lid using glass frit.
  - Index point is provided on cap for terminal identification only on press ceramic glass frit seal only.
  - Falls within MIL STD 1835 GDIP1-T14, GDIP1-T16, GDIP1-T18 and GDIP1-T20.

W (R-GDFP-F14)

CERAMIC DUAL FLATPACK



- NOTES:
- A. All linear dimensions are in inches (millimeters).
  - B. This drawing is subject to change without notice.
  - C. This package can be hermetically sealed with a ceramic lid using glass frit.
  - D. Index point is provided on cap for terminal identification only.
  - E. Falls within MIL STD 1835 GDFP1-F14 and JEDEC MO-092AB

FK (S-CQCC-N\*\*)

LEADLESS CERAMIC CHIP CARRIER

28 TERMINAL SHOWN



- NOTES:
- A. All linear dimensions are in inches (millimeters).
  - B. This drawing is subject to change without notice.
  - C. This package can be hermetically sealed with a metal lid.
  - D. The terminals are gold plated.
  - E. Falls within JEDEC MS-004

N (R-PDIP-T\*\*)

PLASTIC DUAL-IN-LINE PACKAGE

16 PINS SHOWN



4040049/E 12/2002

- NOTES:
- A. All linear dimensions are in inches (millimeters).
  - B. This drawing is subject to change without notice.
  - (C) Falls within JEDEC MS-001, except 18 and 20 pin minimum body length (Dim A).
  - (D) The 20 pin end lead shoulder width is a vendor option, either half or full width.



# MECHANICAL DATA

NS (R-PDSO-G\*\*)

PLASTIC SMALL-OUTLINE PACKAGE

14-PINS SHOWN



- NOTES:
- A. All linear dimensions are in millimeters.
  - B. This drawing is subject to change without notice.
  - C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.

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