

# Monolithic CMOS Analog Multiplexers

## ABSOLUTE MAXIMUM RATINGS

(Voltages referenced to V<sup>-</sup>.)

|                                                               |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------|
| V <sup>+</sup> .....                                          | 44V                                                             |
| GND.....                                                      | 25V                                                             |
| Digital Inputs V <sub>S</sub> , V <sub>D</sub> (Note 1) ..... | -2V to (V <sup>+</sup> + 2V) or<br>20mA, whichever occurs first |
| Current, Any Terminal Except S or D.....                      | 30mA                                                            |
| Continuous Current, S or D.....                               | 20mA                                                            |
| Peak Current, S or D (pulsed at 1ms, 10% duty cycle max)...   | 40mA                                                            |
| Continuous Power Dissipation (T <sub>A</sub> = +70°C)*        |                                                                 |
| 28-Pin Ceramic DIP (derate 16.7mW/°C above +70°C) ..          | 1333mW                                                          |
| 28-Pin Plastic DIP (derate 14.3mW/°C above +70°C) ..          | 1143mW                                                          |

\*All leads soldered or welded to PCB.

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

|                                                  |                 |
|--------------------------------------------------|-----------------|
| 28-Pin Wide SO (derate 12.5mW/°C above +70°C) .. | 1000mW          |
| 28-Pin LCC (derate 10.2mW/°C above +70°C) .....  | 816.3mW         |
| Operating Temperature Range (A Suffix) .....     | -55°C to +125°C |
| (B Suffix) .....                                 | -25°C to +85°C  |
| (C Suffix) .....                                 | 0°C to +70°C    |
| Storage Temperature (A and B Suffix).....        | -65°C to +150°C |
| (C Suffix) .....                                 | -65°C to +125°C |
| Lead Temperature (soldering, 10s) .....          | +300°C          |
| Soldering Temperature (reflow)                   |                 |
| Lead (Pb)-free packages .....                    | +260°C          |
| Packages containing lead (Pb).....               | +240°C          |

## ELECTRICAL CHARACTERISTICS

(V<sup>+</sup> = 15V, V<sup>-</sup> = -15V, V<sub>GND</sub> = 0V, T<sub>A</sub> = +25°C, unless otherwise indicated.)

| PARAMETER                                                      | SYMBOL  | CONDITIONS                                                                                                   |                        | DG506AA<br>DG507AA |                 |     | DG506AB/C<br>DG507AB/C |                 |     | UNITS |
|----------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------|------------------------|--------------------|-----------------|-----|------------------------|-----------------|-----|-------|
|                                                                |         |                                                                                                              |                        | MIN<br>(Note 2)    | TYP<br>(Note 3) | MAX | MIN<br>(Note 2)        | TYP<br>(Note 3) | MAX |       |
| SWITCH                                                         |         |                                                                                                              |                        |                    |                 |     |                        |                 |     |       |
| Analog Signal Range                                            | VANALOG |                                                                                                              |                        | -15                |                 | +15 | -15                    |                 | +15 | V     |
| Drain-to-Source On-Resistance                                  | RDS(ON) | Sequence each switch on, VAL = 0.8V, VAH = 2.4V, VEN = 2.4V                                                  | VD = 10V, IS = -200μA  | 270                | 400             |     | 270                    | 450             |     | Ω     |
|                                                                |         |                                                                                                              | VD = -10V, IS = -200μA | 230                | 400             |     | 230                    | 450             |     |       |
| Greatest Change in Drain-Source On-Resistance Between Channels | RDS(ON) | $\Delta R_{DS(ON)} = \left( \frac{R_{DS(ON)MAX} - R_{DS(ON)MIN}}{R_{DS(ON)AVE}} \right)$<br>-10V ≤ VS ≤ +10V |                        | 6                  |                 |     | 6                      |                 |     | %     |
| Source Off-Leakage Current                                     | IS(OFF) | VEN = 0.8V, VAL = 0.8V                                                                                       | VS = 10V, VD = -10V    | -1                 | 0.002           | +1  | -5                     | 0.002           | +5  | nA    |
|                                                                |         |                                                                                                              | VS = -10V, VD = 10V    | -1                 | -0.005          | +1  | -5                     | -0.005          | +5  |       |
| Drain Off-Leakage Current                                      | ID(OFF) | DG506A, VEN = 0.8V, VAL = 0.8V                                                                               | VD = 10V, VS = -10V    | -10                | 0.02            | +10 | -20                    | 0.02            | +20 | nA    |
|                                                                |         |                                                                                                              | VD = -10V, VS = 10V    | -10                | -0.03           | +10 | -20                    | -0.03           | +20 |       |
|                                                                |         | DG507A, VEN = 0.8V, VAL = 0.8V                                                                               | VD = 10V, VS = -10V    | -5                 | 0.007           | +5  | -10                    | 0.007           | +10 |       |
|                                                                |         |                                                                                                              | VD = -10V, VS = 10V    | -5                 | -0.015          | +5  | -10                    | -0.015          | +10 |       |

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## ELECTRICAL CHARACTERISTICS (continued)

(V<sub>+</sub> = 15V, V<sub>-</sub> = -15V, V<sub>GND</sub> = 0V, T<sub>A</sub> = +25°C, unless otherwise indicated.)

| PARAMETER                                        | SYMBOL             | CONDITIONS                                                                         |                        | DG506AA<br>DG507AA |                 |      | DG506AB/C<br>DG507AB/C |                 |     | UNITS |
|--------------------------------------------------|--------------------|------------------------------------------------------------------------------------|------------------------|--------------------|-----------------|------|------------------------|-----------------|-----|-------|
|                                                  |                    |                                                                                    |                        | MIN<br>(Note 2)    | TYP<br>(Note 3) | MAX  | MIN<br>(Note 2)        | TYP<br>(Note 3) | MAX |       |
| Channel<br>On-Leakage<br>Current                 | ID(ON)<br>(Note 4) | DG506A,<br>sequence each<br>switch on,<br>VAL = 0.8V,<br>VAH = 2.4V,<br>VEN = 2.4V | VS(all) = VD<br>= 10V  | -10                | 0.03            | +10  | -20                    | 0.03            | +20 | nA    |
|                                                  |                    |                                                                                    | VS(all) = VD<br>= -10V | -10                | -0.06           | +10  | -20                    | -0.06           | +20 |       |
|                                                  |                    | DG507A,<br>sequence each<br>switch on,<br>VAL = 0.8V,<br>VAH = 2.4V,<br>VEN = 2.4V | VS(all) = VD<br>= 10V  | -5                 | 0.015           | +5   | -10                    | 0.015           | +10 |       |
|                                                  |                    |                                                                                    | VS(all) = VD<br>= -10V | -5                 | -0.03           | +5   | -10                    | -0.03           | +10 |       |
| INPUT                                            |                    |                                                                                    |                        |                    |                 |      |                        |                 |     |       |
| Address Input<br>Current, Input-<br>Voltage High | IAH                | VA = 2.4V                                                                          |                        | -10                | -0.002          |      | -10                    | -0.002          |     | µA    |
|                                                  |                    | VA = 15V                                                                           |                        |                    | 0.006           | 10   |                        | 0.006           | 10  |       |
| Address Input<br>Current, Input-<br>Voltage Low  | IAL                | All VA = 0V                                                                        | VEN = 2.4V             | -10                | -0.002          |      | -10                    | -0.002          |     | µA    |
|                                                  |                    |                                                                                    | VEN = 0V               | -10                | -0.002          |      | -10                    | -0.002          |     |       |
| DYNAMIC                                          |                    |                                                                                    |                        |                    |                 |      |                        |                 |     |       |
| Switching Time<br>of Multiplexer                 | ttransition        | Figure 1                                                                           |                        |                    | 0.6             | 1    |                        | 0.06            |     | µs    |
| Break-Before-<br>Make Interval                   | tOPEN              | Figure 3                                                                           |                        |                    | 0.2             |      |                        | 0.2             |     | µs    |
| Enable Turn-<br>On Time                          | tON(EN)            | Figure 2                                                                           |                        |                    | 1               |      |                        | 1               |     | µs    |
| Enable Turn-<br>Off Time                         | tOFF(EN)           | Figure 2                                                                           |                        |                    | 0.4             |      |                        | 0.4             |     | µs    |
| Off-Isolation<br>(Note 5)                        | OIRR               | VEN = 0V, RL = 1kΩ, CL =<br>15pF, VS = 7VRMS, f = 500kHz                           |                        |                    | 68              |      |                        | 68              |     | dB    |
| Source Off-<br>Capacitance                       | CS(OFF)            | VEN = 0V, f = 140kHz, VS = 0V                                                      |                        |                    | 6               |      |                        | 6               |     | pF    |
| Drain Off-<br>Capacitance                        | CD(OFF)            | VEN = 0V,<br>f = 140kHz                                                            | DG506A, VD = 0V        |                    | 45              |      |                        | 45              |     | pF    |
|                                                  |                    |                                                                                    | DG507A, VD = 0V        |                    | 23              |      |                        | 23              |     |       |
| SUPPLY                                           |                    |                                                                                    |                        |                    |                 |      |                        |                 |     |       |
| Positive Supply<br>Current                       | I+                 | VEN = 0 or 5V, all VA = 0V                                                         |                        |                    | 0.13            | 0.25 |                        | 0.13            | 0.3 | mA    |
| Negative<br>Supply Current                       | I-                 | VEN = 0 or 5V, all VA = 0V                                                         |                        | -0.15              | -0.07           |      | -0.25                  | -0.07           |     |       |

DG506A/DG507A

# Monolithic CMOS Analog Multiplexers

## ELECTRICAL CHARACTERISTICS (Overtemperature)

(V+ = 15V, V- = -15V, VGND = 0V, TA = otemperature range, unless otherwise noted.)

| PARAMETER                                 | SYMBOL                         | CONDITIONS                                                                                              |                                                | DG506AA<br>DG507AA |                 |      | DG506AB/C<br>DG507AB/C |                 |      | UNITS |
|-------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------|-----------------|------|------------------------|-----------------|------|-------|
|                                           |                                |                                                                                                         |                                                | MIN<br>(Note 2)    | TYP<br>(Note 3) | MAX  | MIN<br>(Note 2)        | TYP<br>(Note 3) | MAX  |       |
| SWITCH                                    |                                |                                                                                                         |                                                |                    |                 |      |                        |                 |      |       |
| Analog Signal Range                       | V <sub>ANALOG</sub>            |                                                                                                         |                                                | -15                |                 | +15  | -15                    |                 | +15  | V     |
| Drain-to-Source On-Resistance             | R <sub>DS(ON)</sub>            | Sequence each switch on, V <sub>AL</sub> = 0.8V, V <sub>AH</sub> = 2.4V, V <sub>EN</sub> = 2.4V         | V <sub>D</sub> = 10V, I <sub>S</sub> = -200μA  |                    |                 | 500  |                        |                 | 550  | Ω     |
|                                           |                                |                                                                                                         | V <sub>D</sub> = -10V, I <sub>S</sub> = -200μA |                    |                 | 500  |                        |                 | 550  |       |
| Source Off-Leakage Current                | I <sub>S(OFF)</sub>            | V <sub>EN</sub> = 0.8V, V <sub>AL</sub> = 0.8V                                                          | V <sub>S</sub> = 10V, V <sub>D</sub> = -10V    | -50                |                 | +50  | -50                    |                 | +50  | nA    |
|                                           |                                |                                                                                                         | V <sub>S</sub> = -10V, V <sub>D</sub> = 10V    | -50                |                 | +50  | -50                    |                 | +50  |       |
| Drain Off-Leakage Current                 | I <sub>D(OFF)</sub>            | DG506A, V <sub>EN</sub> = 0.8V, V <sub>AL</sub> = 0.8V                                                  | V <sub>D</sub> = 10V, V <sub>S</sub> = -10V    | -300               |                 | +300 | -300                   |                 | +300 | nA    |
|                                           |                                |                                                                                                         | V <sub>D</sub> = -10V, V <sub>S</sub> = 10V    | -300               |                 | +300 | -300                   |                 | +300 |       |
|                                           |                                | DG507A, V <sub>EN</sub> = 0.8V, V <sub>AL</sub> = 0.8V                                                  | V <sub>D</sub> = 10V, V <sub>S</sub> = -10V    | -200               |                 | +200 | -200                   |                 | +200 |       |
|                                           |                                |                                                                                                         | V <sub>D</sub> = -10V, V <sub>S</sub> = 10V    | -200               |                 | +200 | -200                   |                 | +200 |       |
| Channel On-Leakage Current                | I <sub>D(ON)</sub><br>(Note 4) | DG506A, sequence each switch on, V <sub>AL</sub> = 0.8V, V <sub>AN</sub> = 2.4V, V <sub>EN</sub> = 2.4V | V <sub>S(all)</sub> = V <sub>D</sub> = 10V     | -300               |                 | +300 | -300                   |                 | +300 | nA    |
|                                           |                                |                                                                                                         | V <sub>S(all)</sub> = V <sub>D</sub> = -10V    | -300               |                 | +300 | -300                   |                 | +300 |       |
|                                           |                                | DG507A, sequence each switch on, V <sub>AL</sub> = 0.8V, V <sub>AN</sub> = 2.4V, V <sub>EN</sub> = 2.4V | V <sub>S(all)</sub> = V <sub>D</sub> = 10V     | -200               |                 | +200 | -200                   |                 | +200 |       |
|                                           |                                |                                                                                                         | V <sub>S(all)</sub> = V <sub>D</sub> = -10V    | -200               |                 | +200 | -200                   |                 | +200 |       |
| INPUT                                     |                                |                                                                                                         |                                                |                    |                 |      |                        |                 |      |       |
| Address Input Current, Input-Voltage High | I <sub>AH</sub>                | V <sub>A</sub> = 2.4V                                                                                   |                                                | -30                |                 | -30  |                        | μA              |      |       |
|                                           |                                | V <sub>A</sub> = 15V                                                                                    |                                                | 30                 |                 | 30   |                        |                 |      |       |
| Address Input Current, Input-Voltage Low  | I <sub>AL</sub>                | All V <sub>A</sub> = 0V                                                                                 | V <sub>EN</sub> = 2.4V                         | -30                |                 | -30  |                        | μA              |      |       |
|                                           |                                |                                                                                                         | V <sub>EN</sub> = 0V                           | 30                 |                 | 30   |                        |                 |      |       |

# Monolithic CMOS Analog Multiplexers

## ELECTRICAL CHARACTERISTICS (Overtemperature) (continued)

(V+ = 15V, V- = -15V, VGND = 0V, TA = over temperature range, unless otherwise noted.)

**Note 1:** Signals on SX, DX, or INX exceeding V+ or V- will be clamped by internal diodes. Limit forward diode current to maximum current ratings.

**Note 2:** The algebraic convention whereby the most negative value is a minimum, and the most positive value is a maximum, is used in this data sheet.

**Note 3:** Typical values are for design aid only, not guaranteed nor subject to production testing.

**Note 4:** ID(ON) is leakage from driver into on switch.

**Note 5:** Off-isolation = 20log x VO/VS, VS = input to off switch, VD = output due to VS.

## Truth Tables

| A3 | A2 | A1 | A0 | EN | ON SWITCH |
|----|----|----|----|----|-----------|
| X  | X  | X  | X  | 0  | None      |
| 0  | 0  | 0  | 0  | 1  | 1         |
| 0  | 0  | 0  | 1  | 1  | 2         |
| 0  | 0  | 1  | 0  | 1  | 3         |
| 0  | 0  | 1  | 1  | 1  | 4         |
| 0  | 1  | 0  | 0  | 1  | 5         |
| 0  | 1  | 0  | 1  | 1  | 6         |
| 0  | 1  | 1  | 0  | 1  | 7         |
| 0  | 1  | 1  | 1  | 1  | 8         |
| 1  | 0  | 0  | 0  | 1  | 9         |
| 1  | 0  | 0  | 1  | 1  | 10        |
| 1  | 0  | 1  | 0  | 1  | 11        |
| 1  | 0  | 1  | 1  | 1  | 12        |
| 1  | 1  | 0  | 0  | 1  | 13        |
| 1  | 1  | 0  | 1  | 1  | 14        |
| 1  | 1  | 1  | 0  | 1  | 15        |
| 1  | 1  | 1  | 1  | 1  | 16        |

| A2 | A1 | A0 | EN | ON SWITCH |
|----|----|----|----|-----------|
| X  | X  | X  | 0  | None      |
| 0  | 0  | 0  | 1  | 1         |
| 0  | 0  | 1  | 1  | 2         |
| 0  | 1  | 0  | 1  | 3         |
| 0  | 1  | 1  | 1  | 4         |
| 1  | 0  | 0  | 1  | 5         |
| 1  | 0  | 1  | 1  | 6         |
| 1  | 1  | 0  | 1  | 7         |
| 1  | 1  | 1  | 1  | 8         |

**Note:** Logic "0" =  $V_{AL} \leq 0.8V$ , Logic "1" =  $V_{AH} \geq 2.4V$ , "0" = Don't Care.

## Switching Time Test Circuits

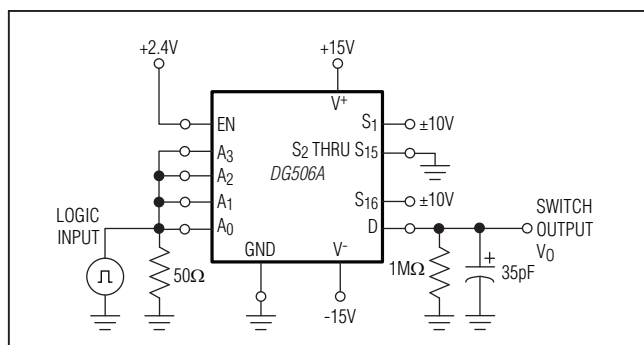


Figure 1a. Transition Switching Time

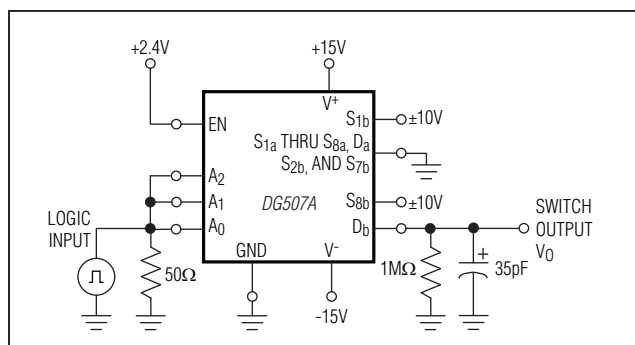


Figure 1b. Transition Switching Time

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## Switching Time Test Circuits (continued)

**DG506A/DG507A**

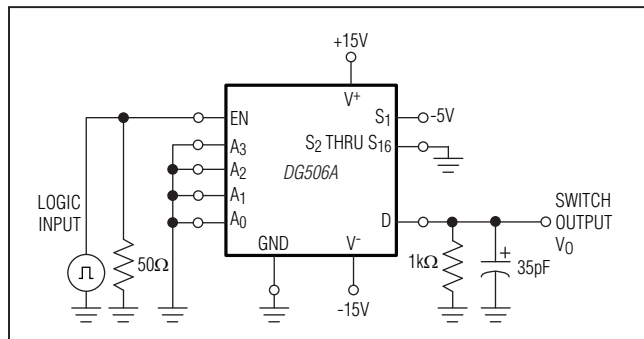


Figure 2a. Enable Switching Time

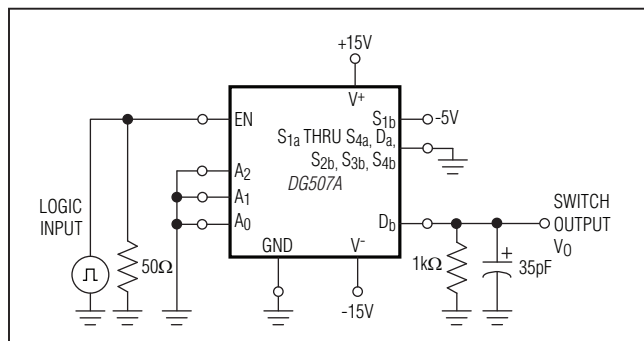


Figure 2b. Enable Switching Time

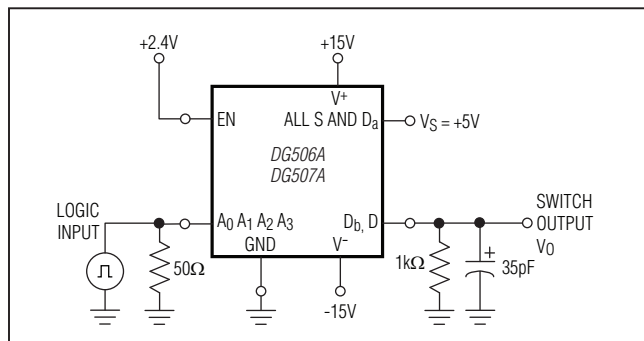


Figure 3. Break-Before-Make

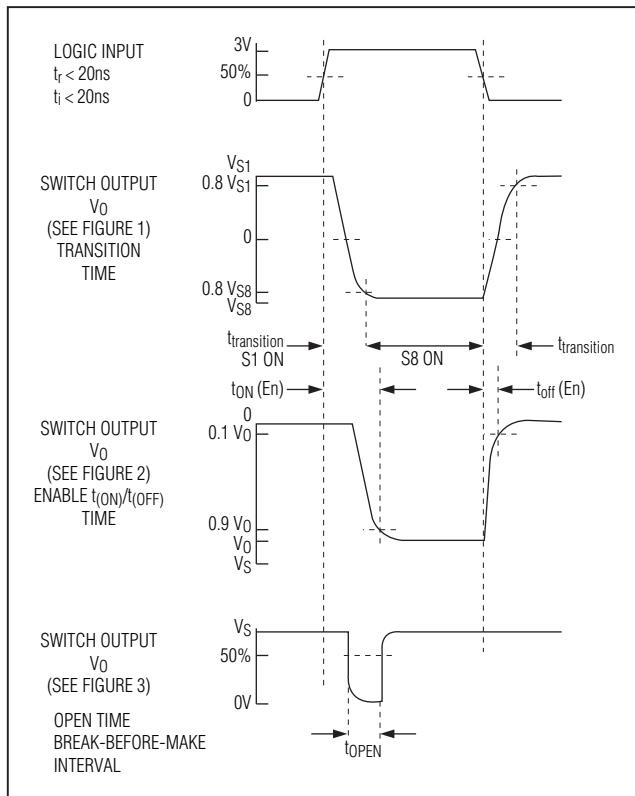
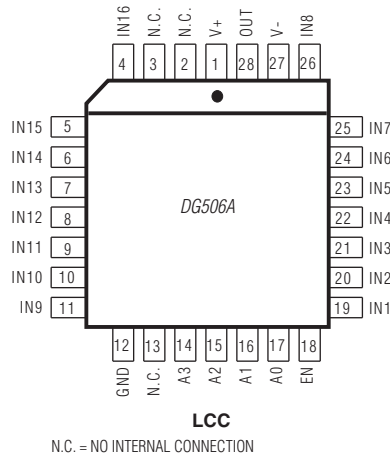


Figure 4. Timing Diagrams for Figures 1, 2, and 3

# Monolithic CMOS Analog Multiplexers

## Pin Configurations (continued)

DG506A/DG507A



## Pin Description

| PIN                |                    | NAME            | FUNCTION                                 |
|--------------------|--------------------|-----------------|------------------------------------------|
| DG506A<br>DIP / SO | DG507A<br>DIP / SO |                 |                                          |
| 1                  | 1                  | V+              | Positive Supply Voltage Input            |
| 2, 3               | 3                  | N.C.            | No Connection. Internally not connected. |
| —                  | 2                  | D <sub>b</sub>  | Analog Output Bidirectional Channel b    |
| 4                  | —                  | S <sub>16</sub> | Analog Output Bidirectional Channel 16   |
| —                  | 4                  | S <sub>8b</sub> | Analog Output Bidirectional Channel 8b   |
| 5                  | —                  | S <sub>15</sub> | Analog Output Bidirectional Channel 15   |
| —                  | 5                  | S <sub>7b</sub> | Analog Output Bidirectional Channel 7b   |
| 6                  | —                  | S <sub>14</sub> | Analog Output Bidirectional Channel 14   |
| —                  | 6                  | S <sub>6b</sub> | Analog Output Bidirectional Channel 6b   |
| 7                  | —                  | S <sub>13</sub> | Analog Output Bidirectional Channel 13   |
| —                  | 7                  | S <sub>5b</sub> | Analog Output Bidirectional Channel 5b   |
| 8                  | —                  | S <sub>12</sub> | Analog Output Bidirectional Channel 12   |
| —                  | 8                  | S <sub>4b</sub> | Analog Output Bidirectional Channel 4b   |
| 9                  | —                  | S <sub>11</sub> | Analog Output Bidirectional Channel 11   |
| —                  | 9                  | S <sub>3b</sub> | Analog Output Bidirectional Channel 3b   |
| 10                 | —                  | S <sub>10</sub> | Analog Output Bidirectional Channel 10   |
| —                  | 10                 | S <sub>2b</sub> | Analog Output Bidirectional Channel 2b   |
| 11                 | —                  | S <sub>9</sub>  | Analog Output Bidirectional Channel 9    |
| —                  | 11                 | S <sub>1b</sub> | Analog Output Bidirectional Channel 1b   |
| 12                 | 12                 | GND             | Ground                                   |

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## Pin Description (continued)

| PIN                |                    | NAME            | FUNCTION                                 |
|--------------------|--------------------|-----------------|------------------------------------------|
| DG506A<br>DIP / SO | DG507A<br>DIP / SO |                 |                                          |
| 13                 | 13, 14             | N.C.            | No Connection. Not internally connected. |
| 14                 | —                  | A3              | Address Input A3                         |
| 15                 | 15                 | A2              | Address Input A2                         |
| 16                 | 16                 | A1              | Address Input A1                         |
| 17                 | 17                 | A0              | Address Input A0                         |
| 18                 | 18                 | EN              | Enable Input                             |
| 19                 | —                  | S <sub>1</sub>  | Analog Output Bidirectional Channel 1    |
| —                  | 19                 | S <sub>1A</sub> | Analog Output Bidirectional Channel 1a   |
| 20                 | —                  | S <sub>2</sub>  | Analog Output Bidirectional Channel 2    |
| —                  | 20                 | S <sub>2A</sub> | Analog Output Bidirectional Channel 2a   |
| 21                 | —                  | S <sub>3</sub>  | Analog Output Bidirectional Channel 3    |
| —                  | 21                 | S <sub>3A</sub> | Analog Output Bidirectional Channel 3a   |
| 22                 | —                  | S <sub>4</sub>  | Analog Output Bidirectional Channel 4    |
| —                  | 22                 | S <sub>4A</sub> | Analog Output Bidirectional Channel 5    |
| 23                 | —                  | S <sub>5</sub>  | Analog Output Bidirectional Channel 5a   |
| —                  | 23                 | S <sub>5a</sub> | Analog Output Bidirectional Channel 6    |
| 24                 | —                  | S <sub>6</sub>  | Analog Output Bidirectional Channel 6a   |
| —                  | 24                 | S <sub>6a</sub> | Analog Output Bidirectional Channel 7    |
| 25                 | —                  | S <sub>7</sub>  | Analog Output Bidirectional Channel 7a   |
| —                  | 25                 | S <sub>7a</sub> | Analog Output Bidirectional Channel 8    |
| 26                 | —                  | S <sub>8</sub>  | Analog Output Bidirectional Channel 8a   |
| —                  | 26                 | S <sub>8a</sub> | Analog Output Bidirectional Channel      |
| 27                 | 27                 | V-              | Negative Supply Voltage Input            |
| 28                 | —                  | D               | Analog Output Bidirectional              |
| —                  | 28                 | Da              | Analog Output Bidirectional Channel a    |

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## Pin Description (continued)

DG506A/DG507A

| PIN           | NAME             | FUNCTION                                 |
|---------------|------------------|------------------------------------------|
| DG506A<br>LCC |                  |                                          |
| 1             | V+               | Positive Supply Voltage Input            |
| 2, 3          | N.C.             | NoConnection. Internally not connected.  |
| 4             | IN <sub>16</sub> | Analog Input Bidirectional Channel 16    |
| 5             | IN <sub>15</sub> | Analog Input Bidirectional Channel 15    |
| 6             | IN <sub>14</sub> | Analog Input Bidirectional Channel 14    |
| 7             | IN <sub>13</sub> | Analog Input Bidirectional Channel 13    |
| 8             | IN <sub>12</sub> | Analog Input Bidirectional Channel 12    |
| 9             | IN <sub>11</sub> | Analog Input Bidirectional Channel 11    |
| 10            | IN <sub>10</sub> | Analog Input Bidirectional Channel 10    |
| 11            | IN <sub>9</sub>  | Analog Input Bidirectional Channel 9     |
| 12            | GND              | Ground                                   |
| 13            | N.C.             | No Connection. Not internally connected. |
| 14            | A3               | Address Input A3                         |
| 15            | A2               | Address Input A2                         |
| 16            | A1               | Address Input A1                         |
| 17            | A0               | Address Input A0                         |
| 18            | EN               | Enable Input                             |
| 19            | IN <sub>1</sub>  | Analog Input Bidirectional Channel 1     |
| 20            | IN <sub>2</sub>  | Analog Input Bidirectional Channel 2     |
| 21            | IN <sub>3</sub>  | Analog Input Bidirectional Channel 3     |
| 22            | IN <sub>4</sub>  | Analog Input Bidirectional Channel 4     |
| 23            | IN <sub>5</sub>  | Analog Input Bidirectional Channel 5     |
| 24            | IN <sub>6</sub>  | Analog Input Bidirectional Channel 6     |
| 25            | IN <sub>7</sub>  | Analog Input Bidirectional Channel 7     |
| 26            | IN <sub>8</sub>  | Analog Input Bidirectional Channel 8     |
| 27            | V-               | Negative Supply Voltage Input            |
| 28            | OUT              | Analog Output Bidirectional              |

## Package Information

For the latest package outline information and land patterns, go to [www.maxim-ic.com/packages](http://www.maxim-ic.com/packages). Note that a "+", "#", or "-" in the package code indicates RoHS status only. Package drawings may show a different suffix number, but the drawing pertains to the package regardless of RoHS status.

| PACKAGE TYPE   | PACKAGE CODE | OUTLINE NO.             | LAND PATTERN NO.        |
|----------------|--------------|-------------------------|-------------------------|
| 28 CERDIP      | J28-2        | <a href="#">21-0046</a> | —                       |
| 28 Plastic DIP | P28-2        | <a href="#">21-0044</a> | —                       |
| 28 Wide SO     | W28-5        | <a href="#">21-0042</a> | <a href="#">90-0109</a> |
| 28 Wide SO     | W28-5        | <a href="#">21-0047</a> | <a href="#">90-0178</a> |
| 28 LCC         | L28-2        | <a href="#">21-4497</a> | <a href="#">90-0178</a> |



# Monolithic CMOS Analog Multiplexers

## Revision History

| REVISION<br>NUMBER | REVISION<br>DATE | DESCRIPTION                                                                                                                                                                                                             | PAGES<br>CHANGED |
|--------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 0                  | 8/92             | Initial release                                                                                                                                                                                                         | —                |
| 1                  | 1/99             | Updated to Word format.                                                                                                                                                                                                 | 1–7              |
| 2                  | 5/09             | Added ruggedized plastic part.                                                                                                                                                                                          | 1–4, 7           |
| 3                  | 2/10             | <ul style="list-style-type: none"> <li>Added lead temperature to the <i>Absolute Maximum Ratings</i>.</li> <li>Changed the derate rate of all packages to above 70°C in the <i>Absolute Maximum Ratings</i>.</li> </ul> | 2                |
| 4                  | 6/12             | Added DG506AAZ/883B; added the Pin Descriptions for DG506A DIP/SO, DG507A DIP/SO, DG506A LCC; added LCC Pin Configuration for the DG506A                                                                                | 1, 2, 7, 9       |

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