## Description

The Advanced Ultra Low Power (AUP) CMOS logic family is designed for low power and extended battery life in portable applications.

The 74AUP2G34 is composed of two buffers with standard push-pull outputs designed for operation over a power supply range of 0.8V to 3.6V. The device is fully specified for partial power down applications using $I_{OFF}$. The $I_{OFF}$ circuitry disables the output preventing damaging current backflow when the device is powered down. The gates perform the positive Boolean function:

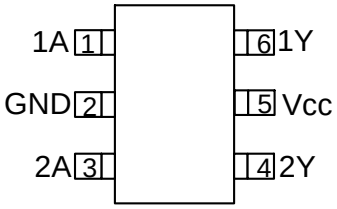
$Y = A$

## Features

- Advanced Ultra Low Power (AUP) CMOS
- Supply Voltage Range from 0.8V to 3.6V
- ±4mA Output Drive at 3.0V
- Low Static Power Consumption
  - $I_{CC}$ < 0.9µA
- Low Dynamic Power Consumption
  - $C_{PD}$ = 6pF Typical at 3.6V
- Schmitt Trigger Action at All Inputs Make the Circuit Tolerant for Slower Input Rise and Fall Time. The Hysteresis is Typically 250mV at $V_{CC}$ = 3.0V
- $I_{OFF}$ Supports Partial-Power-Down Mode Operation
- ESD Protection per JESD 22
  - Exceeds 200-V Machine Model (A115)
  - Exceeds 2000-V Human Body Model (A114)
  - Exceeds 1000-V Charged Device Model (C101)
- Latch-Up Exceeds 100mA per JESD 78, Class I
- Leadless packages per JESD30E
  - DFN1410 denoted as X2-DFN1410-6
  - DFN1010 denoted as X2-DFN1010-6
  - DFN0910 denoted as X2-DFN0910-6
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

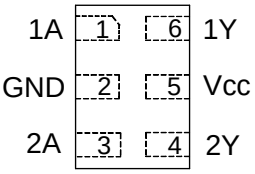
## Pin Assignments

**(Top View)**



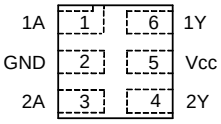

**SOT363**

**(Top View)**



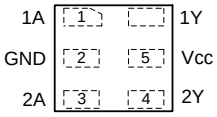

**X2-DFN1410-6**

**(Top View)**




**X2-DFN1010-6**

**(Top View)**



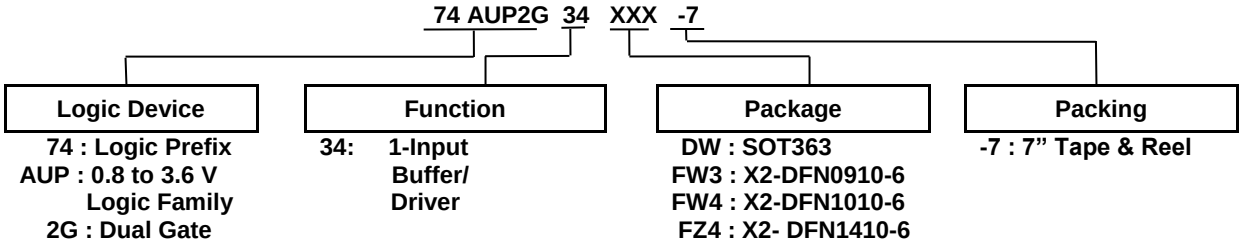

**X2-DFN0910-6**

## Applications

- Suited for Battery and Low Power Needs
- Wide array of products such as:
  - PCs, Networking, Notebooks, Netbooks, PDAs
  - Tablet Computers, E-readers
  - Computer Peripherals, Hard Drives, CD/DVD ROM
  - TV, DVD, DVR, Set-Top Box
  - Cell Phones, Personal Navigation / GPS
  - MP3 Players ,Cameras, Video Recorders

Notes:
1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## Ordering Information



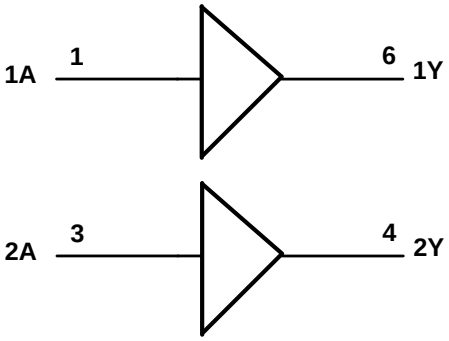

| Part Number | Package Code | Package (Notes 4 & 5) | Package Size | 7" Tape and Reel | |
|---|---|---|---|---|---|
| | | | | Quantity | Part Number Suffix |
| 74AUP2G34DW-7 | DW | SOT363 | 2.0mm X 2.0mm X 1.1mm 0.65 mm lead pitch | 3000/Tape & Reel | -7 |
| 74AUP2G34FW3-7 | FW3 | X2-DFN0910-6 | 0.9mm X 1.0mm X 0.35mm 0.35 mm pad pitch | 5000/Tape & Reel | -7 |
| 74AUP2G34FW4-7 | FW4 | X2-DFN1010-6 | 1.0mm X 1.0mm X 0.4mm 0.35 mm pad pitch | 5000/Tape & Reel | -7 |
| 74AUP2G34FZ4-7 | FZ4 | X2-DFN1410-6 | 1.4mm X 1.0mm X 0.4mm 0.5 mm pad pitch | 5000/Tape & Reel | -7 |

Notes: 4. Pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
5. The taping orientation is located on our website at http://www.diodes.com/datasheets/ap02007.pdf.

## Pin Descriptions

| Pin Name | Pin No. | Function |
|---|---|---|
| 1A | 1 | Data Input |
| GND | 2 | Ground |
| 2A | 3 | Data Input |
| 2Y | 4 | Data Output |
| $V_{CC}$ | 5 | Supply Voltage |
| 1Y | 6 | Data Output |

## Logic Diagram




## Function Table

| Inputs | Outputs |
|---|---|
| **A** | **Y** |
| H | H |
| L | L |

## Absolute Maximum Ratings (Notes 6,7) (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Parameter | Rating | Unit |
|---|---|---|---|
| ESD HBM | Human Body Model ESD Protection | 2 | kV |
| ESD CDM | Charged Device Model ESD Protection | 1 | kV |
| ESD MM | Machine Model ESD Protection | 200 | V |
| $V_{CC}$ | Supply Voltage Range | -0.5 to +4.6 | V |
| $V_I$ | Input Voltage Range | -0.5 to +4.6 | V |
| $V_O$ | Voltage Applied to Output in High or Low State | -0.5 to $V_{CC}$ +0.5 | V |
| $I_{IK}$ | Input Clamp Current $V_I$ < 0 | 50 | mA |
| $I_{OK}$ | Output Clamp Current ($V_O$ < 0 ) | -50 | mA |
| $I_O$ | Continuous Output Current ($V_O$ = 0 to $V_{CC}$) | ±20 | mA |
| $I_{CC}$ | Continuous Current Through $V_{CC}$ | 50 | mA |
| $I_{GND}$ | Continuous Current Through GND | -50 | mA |
| $T_J$ | Operating Junction Temperature | -40 to +150 | °C |
| $T_{STG}$ | Storage Temperature | -65 to +150 | °C |

Notes: 6. Stresses beyond the absolute maximum may result in immediate failure or reduced reliability. These are stress values and device operation should be within recommend values.
7. Forcing the maximum allowed voltage could cause a condition exceeding the maximum current or conversely forcing the maximum current could cause a condition exceeding the maximum voltage. The ratings of both current and voltage must be maintained within the controlled range.

## Recommended Operating Conditions (Note 8) (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Parameter | | Min | Max | Unit |
|---|---|---|---|---|---|
| $V_{CC}$ | Operating Voltage | — | 0.8 | 3.6 | V |
| $V_I$ | Input Voltage | | 0 | 3.6 | V |
| $V_O$ | Output Voltage | | 0 | $V_{CC}$ | V |
| $I_{OH}$ | High-Level Output Current | $V_{CC}$ = 0.8V | — | -20 | µA |
| | | $V_{CC}$ = 1.1V | — | -1.1 | mA |
| | | $V_{CC}$ = 1.4V | — | -1.7 | |
| | | $V_{CC}$ = 1.65V | — | -1.9 | |
| | | $V_{CC}$ = 2.3V | — | -3.1 | |
| | | $V_{CC}$ = 3.0V | — | -4 | |
| $I_{OL}$ | Low-Level Output Current | $V_{CC}$ = 0.8V | — | 20 | µA |
| | | $V_{CC}$ = 1.1V | — | 1.1 | mA |
| | | $V_{CC}$ = 1.4V | — | 1.7 | |
| | | $V_{CC}$ = 1.65V | — | 1.9 | |
| | | $V_{CC}$ = 2.3V | — | 3.1 | |
| | | $V_{CC}$ = 3.0V | — | 4 | |
| Δt/ΔV | Input Transition Rise or Fall Rate | $V_{CC}$ = 0.8V to 3.6V | — | 200 | ns/V |
| $T_A$ | Operating Free-Air Temperature | — | -40 | +125 | °C |

Note: 8. Unused inputs should be held at $V_{CC}$ or Ground.

## Electrical Characteristics (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Parameter | Test Conditions | $V_{CC}$ | $T_A$ = +25°C | | $T_A$ = -40 to +85°C | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | | | Min | Max | Min | Max | |
| $V_{IH}$ | High-Level Input Voltage | — | 0.8V to 1.65V | 0.80 X $V_{CC}$ | — | 0.80 X $V_{CC}$ | — | V |
| | | — | 1.65V to 1.95V | 0.65 X $V_{CC}$ | — | 0.65 X $V_{CC}$ | — | |
| | | — | 2.3V to 2.7V | 1.6 | — | 1.6 | — | |
| | | — | 3.0V to 3.6V | 2.0 | — | 2.0 | — | |
| $V_{IL}$ | Low-Level Input Voltage | — | 0.8V to 1.65V | — | 0.30 X $V_{CC}$ | — | 0.30 X $V_{CC}$ | V |
| | | — | 1.65V to 1.95V | — | 0.35 X $V_{CC}$ | — | 0.35 X $V_{CC}$ | |
| | | — | 2.3V to 2.7V | — | 0.7 | — | 0.7 | |
| | | — | 3.0V to 3.6V | — | 0.9 | — | 0.9 | |
| $V_{OH}$ | High-Level Output Voltage | $I_{OH}$ = -20μA | 0.8V to 3.6V | $V_{CC}$ – 0.1 | — | $V_{CC}$ – 0.1 | — | V |
| | | $I_{OH}$ = -1.1mA | 1.1V | 0.75 X $V_{CC}$ | — | 0.7 X $V_{CC}$ | — | |
| | | $I_{OH}$ = -1.7mA | 1.4V | 1.11 | — | 1.03 | — | |
| | | $I_{OH}$ = -1.9mA | 1.65V | 1.32 | — | 1.3 | — | |
| | | $I_{OH}$ = -2.3mA | 2.3V | 2.05 | — | 1.97 | — | |
| | | $I_{OH}$ = -3.1mA | | 1.9 | — | 1.85 | — | |
| | | $I_{OH}$ = -2.7mA | 3V | 2.72 | — | 2.67 | — | |
| | | $I_{OH}$ = -4mA | | 2.6 | — | 2.55 | — | |
| $V_{OL}$ | Low-Level Input Voltage | $I_{OL}$ = 20μA | 0.8V to 3.6V | — | 0.1 | — | 0.1 | V |
| | | $I_{OL}$ = 1.1mA | 1.1V | — | 0.3 X $V_{CC}$ | — | 0.3 X $V_{CC}$ | |
| | | $I_{OL}$ = 1.7mA | 1.4V | — | 0.31 | — | 0.37 | |
| | | $I_{OL}$ = 1.9mA | 1.65V | — | 0.31 | — | 0.35 | |
| | | $I_{OL}$ = 2.3mA | 2.3V | — | 0.31 | — | 0.33 | |
| | | $I_{OL}$ = 3.1mA | | — | 0.44 | — | 0.45 | |
| | | $I_{OL}$ = 2.7mA | 3V | — | 0.31 | — | 0.33 | |
| | | $I_{OL}$ = 4mA | | — | 0.44 | — | 0.45 | |
| $I_I$ | Input Current | A or B Input $V_I$ = GND to 3.6V | 0V to 3.6V | — | ± 0.1 | — | ± 0.5 | μA |
| $I_{OFF}$ | Power Down Leakage Current | $V_I$ or $V_O$ = 0V to 3.6V | 0V | — | ± 0.2 | — | ± 0.6 | μA |
| $\Delta I_{OFF}$ | Delta Power Down Leakage Current | $V_I$ or $V_O$ = 0V to 3.6V | 0V to 0.2V | — | ± 0.2 | — | ± 0.6 | μA |
| $I_{CC}$ | Supply Current | $V_I$ = GND or $V_{CC}$, $I_O$ = 0 | 0.8V to 3.6V | — | 0.5 | — | 0.9 | μA |
| $\Delta I_{CC}$ | Additional Supply Current | One input at $V_{CC}$ –0.6V Other input at $V_{CC}$ or GND | 3.3V | — | 40 | — | 50 | μA |

## Electrical Characteristics (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Parameter | Test Conditions | $V_{CC}$ | $T_A$ = -40 to +125°C | | Unit |
|---|---|---|---|---|---|---|
| | | | | Min | Max | |
| $V_{IH}$ | High-Level Input Voltage | — | 0.8V to 1.65V | 0.80 X $V_{CC}$ | — | V |
| | | — | 1.65V to 1.95V | 0.70 X $V_{CC}$ | — | |
| | | — | 2.3V to 2.7V | 1.6 | — | |
| | | — | 3.0V to 3.6V | 2.0 | — | |
| $V_{IL}$ | Low-Level Input Voltage | — | 0.8V to 1.65V | — | 0.25 X $V_{CC}$ | V |
| | | — | 1.65V to 1.95V | — | 0.30 X $V_{CC}$ | |
| | | — | 2.3V to 2.7V | — | 0.7 | |
| | | — | 3.0V to 3.6V | — | 0.9 | |
| $V_{OH}$ | High Level Output Voltage | $I_{OH}$ = -20µA | 0.8V to 3.6V | $V_{CC}$ – 0.11 | — | V |
| | | $I_{OH}$ = -1.1mA | 1.1V | 0.6 X $V_{CC}$ | — | |
| | | $I_{OH}$ = -1.7mA | 1.4V | 0.93 | — | |
| | | $I_{OH}$ = -1.9mA | 1.65V | 1.17 | — | |
| | | $I_{OH}$ = -2.3mA | 2.3V | 1.77 | — | |
| | | $I_{OH}$ = -3.1mA | | 1.67 | — | |
| | | $I_{OH}$ = -2.7mA | 3V | 2.40 | — | |
| | | $I_{OH}$ = -4mA | | 2.30 | — | |
| $V_{OL}$ | Low-Level Input Voltage | $I_{OL}$ = 20µA | 0.8V to 3.6V | — | 0.11 | V |
| | | $I_{OL}$ = 1.1mA | 1.1V | — | 0.33 X $V_{CC}$ | |
| | | $I_{OL}$ = 1.7mA | 1.4V | — | 0.41 | |
| | | $I_{OL}$ = 1.9mA | 1.65V | — | 0.39 | |
| | | $I_{OL}$ = 2.3mA | 2.3V | — | 0.36 | |
| | | $I_{OL}$ = 3.1mA | | — | 0.50 | |
| | | $I_{OL}$ = 2.7mA | 3V | — | 0.36 | |
| | | $I_{OL}$ = 4mA | | — | 0.50 | |
| $I_I$ | Input Current | A or B Input $V_I$ = GND to 3.6V | 0V to 3.6V | — | ± 0.75 | µA |
| $I_{OFF}$ | Power Down Leakage Current | $V_I$ or $V_O$ = 0V to 3.6V | 0V | — | ± 1.0 | µA |
| $\Delta I_{OFF}$ | Delta Power Down Leakage Current | $V_I$ or $V_O$ = 0V to 3.6V | 0V to 0.2V | — | ± 2.5 | µA |
| $I_{CC}$ | Supply Current | $V_I$ = GND or $V_{CC}$, $I_O$ = 0 | 0.8V to 3.6V | — | 1.4 | µA |
| $\Delta I_{CC}$ | Additional Supply Current | Input at $V_{CC}$ –0.6V Other input at $V_{CC}$ or GND | 3.3V | — | 75 | µA |

## Operating and Package Characteristics

$T_A$ = +25°C

| Parameter | | Test Conditions | $V_{CC}$ | Typ | Unit |
|---|---|---|---|---|---|
| $C_{pd}$ | Power dissipation capacitance | f = 1MHz No Load | 0.8V | 5.1 | pF |
| | | | 1.2V ± 0.1V | 5.2 | |
| | | | 1.5V ± 0.1V | 5.2 | |
| | | | 1.8V ± 0.15V | 5.5 | |
| | | | 2.5V ± 0.2V | 5.7 | |
| | | | 3.3V ± 0.3V | 6.0 | |
| $C_I$ | Input Capacitance | $V_i$ = $V_{CC}$ or GND | 0V or 3.3V | 2.0 | pF |
| $C_O$ | Output Capacitance | $V_O$ = $V_{CC}$ or GND | 0V | 2.0 | pF |

## Switching Characteristics

$C_L$ = 5pF see Figure 1

| Parameter | From Input | TO OUTPUT | $V_{CC}$ | $T_A$ = +25°C | | | $T_A$ = -40 to +85°C | | $T_A$ = -40 to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $t_{pd}$ | A | Y | 0.8V | — | 14.9 | — | — | — | — | — | ns |
| | | | 1.2V ± 0.1V | 2.6 | 4.7 | 10.1 | 2.0 | 11.1 | 2.0 | 12.2 | |
| | | | 1.5V ± 0.1V | 2.1 | 3.4 | 5.7 | 1.6 | 6.5 | 1.6 | 7.2 | |
| | | | 1.8V ± 0.15V | 1.8 | 2.9 | 4.5 | 1.4 | 5.2 | 1.4 | 5.8 | |
| | | | 2.5V ± 0.2V | 1.5 | 2.3 | 3.5 | 1.2 | 4.2 | 1.2 | 4.6 | |
| | | | 3.3V ± 0.3V | 1.4 | 2.1 | 3.2 | 1.0 | 3.8 | 1.0 | 4.2 | |

$C_L$ = 10pF see Figure 1

| Parameter | From Input | TO OUTPUT | $V_{CC}$ | $T_A$ = +25°C | | | $T_A$ = -40 to +85°C | | $T_A$ = -40 to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $t_{pd}$ | A | Y | 0.8V | — | 18.4 | — | — | — | — | — | ns |
| | | | 1.2V ± 0.1V | 3.2 | 5.6 | 11.8 | 2.3 | 12.8 | 2.3 | 13.5 | |
| | | | 1.5V ± 0.1V | 2.6 | 4.1 | 6.7 | 1.9 | 7.7 | 1.9 | 8.5 | |
| | | | 1.8V ± 0.15V | 2.3 | 3.4 | 5.3 | 1.7 | 6.2 | 1.7 | 6.9 | |
| | | | 2.5V ± 0.2V | 2.0 | 2.9 | 4.2 | 1.5 | 5.0 | 1.5 | 5.5 | |
| | | | 3.3V ± 0.3V | 1.7 | 2.6 | 3.8 | 1.4 | 4.6 | 1.4 | 5.1 | |

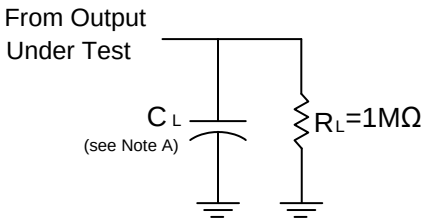
$C_L$ = 15pF see Figure 1

| Parameter | From Input | TO OUTPUT | $V_{CC}$ | $T_A$ = +25°C | | | $T_A$ = -40 to +85°C | | $T_A$ = -40 to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $t_{pd}$ | A | Y | 0.8V | — | 21.9 | — | — | — | — | — | ns |
| | | | 1.2V ± 0.1V | 3.6 | 6.4 | 13.8 | 2.6 | 15.7 | 2.6 | 15.9 | |
| | | | 1.5V ± 0.1V | 3.0 | 4.6 | 7.6 | 2.2 | 8.9 | 2.2 | 9.8 | |
| | | | 1.8V ± 0.15V | 2.6 | 3.9 | 6.0 | 2.0 | 7.2 | 2.0 | 7.9 | |
| | | | 2.5V ± 0.2V | 2.3 | 3.3 | 4.8 | 1.8 | 5.7 | 1.8 | 6.3 | |
| | | | 3.3V ± 0.3V | 1.8 | 3.1 | 4.2 | 1.6 | 5.0 | 1.6 | 5.5 | |

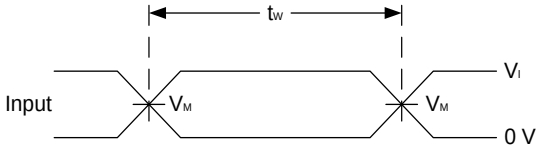
$C_L$ = 30pF see Figure 1

| Parameter | From Input | TO OUTPUT | $V_{CC}$ | $T_A$ = +25°C | | | $T_A$ = -40 to +85°C | | $T_A$ = -40 to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $t_{pd}$ | A | Y | 0.8V | — | 32.1 | — | — | — | — | — | ns |
| | | | 1.2V ± 0.1V | 4.8 | 8.7 | 16.3 | 3.6 | 18.9 | 3.6 | 20.8 | |
| | | | 1.5V ± 0.1V | 4.0 | 6.2 | 10.3 | 3.4 | 12.2 | 3.4 | 13.4 | |
| | | | 1.8V ± 0.15V | 3.6 | 5.2 | 8.1 | 3.2 | 9.8 | 3.2 | 10.8 | |
| | | | 2.5V ± 0.2V | 2.4 | 4.4 | 6.4 | 2.3 | 7.7 | 2.3 | 8.5 | |
| | | | 3.3V ± 0.3V | 2.2 | 4.2 | 5.6 | 2.1 | 6.5 | 2.1 | 7.2 | |

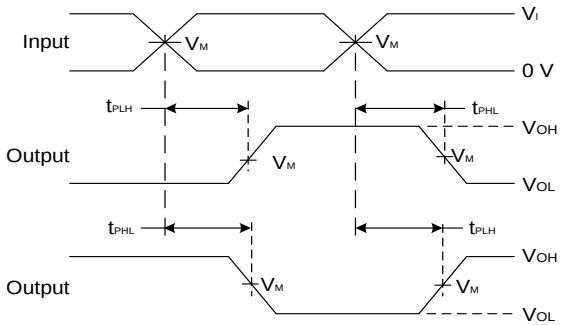
## Parameter Measurement Information




| $V_{CC}$ | Inputs | | $V_M$ | $C_L$ |
|---|---|---|---|---|
| | $V_I$ | $t_r/t_f$ | | |
| 0.8V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |
| 1.2V±0.1V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |
| 1.5V±0.1V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |
| 1.8V±0.15V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |
| 2.5V±0.2V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |
| 3.3V±0.3V | $V_{CC}$ | ≤3ns | $V_{CC}/2$ | 5, 10, 15, 30pF |




**Voltage Waveform Pulse Duration**



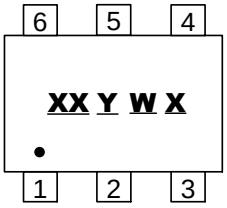

**Voltage Waveform Propagation Delay Times**
**Inverting and Non Inverting Outputs**

**Figure 1 Load Circuit and Voltage Waveforms**

Notes: A. Includes test lead and test apparatus capacitance.
B. All pulses are supplied at pulse repetition rate ≤ 10 MHz.
C. Inputs are measured separately one transition per measurement.
D. $t_{PLH}$ and $t_{PHL}$ are the same as $t_{PD}$.

## Marking Information

**(1) SOT363**

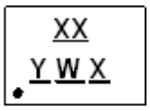



XX : Identification code
Y : Year 0~9
W : Week : A~Z : 1~26 week;
a~z : 27~52 week; z represents
52 and 53 week
X : A~Z : Internal Code

| Part Number | Package | Identification Code |
|---|---|---|
| 74AUP2G34DW-7 | SOT363 | ST |

**(2) X2-DFN1410-6, X2-DFN1010-6, X2-DFN0910-6**

(Top View)

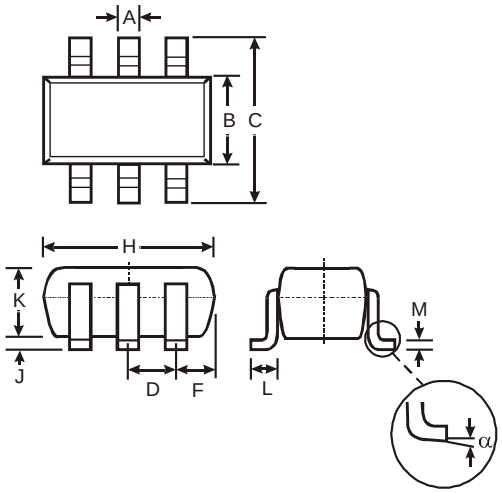



XX : Identification Code
Y : Year : 0~9
W : Week : A~Z : 1~26 week;
a~z : 27~52 week; z represents
52 and 53 week
X : A~Z : Internal code

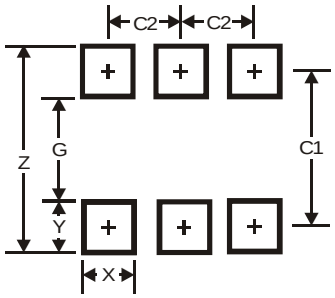
| Part Number | Package | Identification Code |
|---|---|---|
| 74AUP2G34FZ4-7 | X2-DFN1410-6 | RT |
| 74AUP2G34FW4-7 | X2-DFN1010-6 | ST |
| 74AUP2G34FW3-7 | X2-DFN0910-6 | MT |

## SOT363 Package Outline Dimensions and Suggested Pad Layout

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



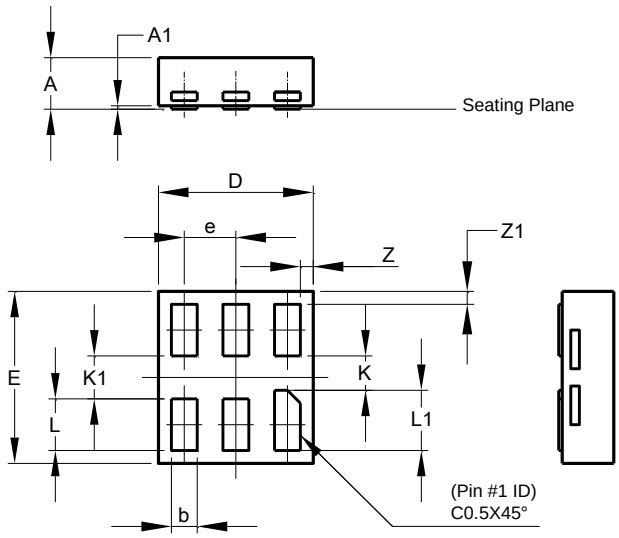

| SOT363 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | 0.10 | 0.30 | 0.25 |
| **B** | 1.15 | 1.35 | 1.30 |
| **C** | 2.00 | 2.20 | 2.10 |
| **D** | 0.65 Typ | | |
| **F** | 0.40 | 0.45 | 0.425 |
| **H** | 1.80 | 2.20 | 2.15 |
| **J** | 0 | 0.10 | 0.05 |
| **K** | 0.90 | 1.00 | 1.00 |
| **L** | 0.25 | 0.40 | 0.30 |
| **M** | 0.10 | 0.22 | 0.11 |
| **α** | 0° | 8° | - |
| **All Dimensions in mm** | | | |



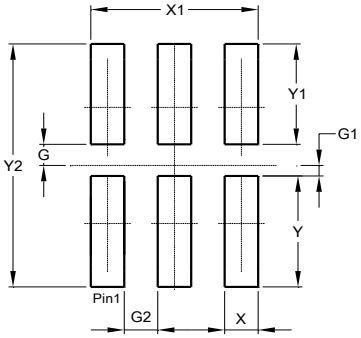

| Dimensions | Value (in mm) |
|---|---|
| **Z** | 2.5 |
| **G** | 1.3 |
| **X** | 0.42 |
| **Y** | 0.6 |
| **C1** | 1.9 |
| **C2** | 0.65 |

## X2-DFN0910-6 Package Outline Dimensions and Suggested Pad Layout

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



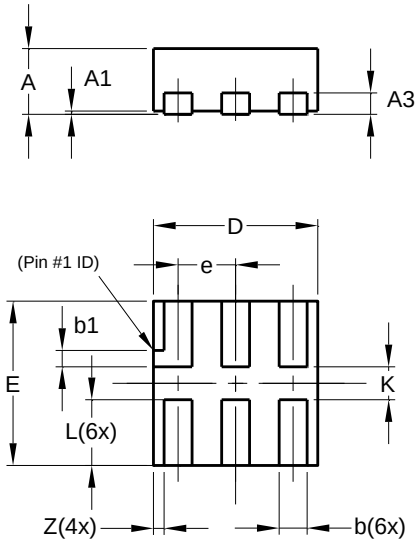

| X2-DFN0910-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | - | 0.35 | 0.30 |
| **A1** | 0 | 0.03 | 0.02 |
| **b** | 0.10 | 0.20 | 0.15 |
| **D** | 0.85 | 0.95 | 0.90 |
| **E** | 0.95 | 1.05 | 1.00 |
| **e** | - | - | 0.30 |
| **K** | 0.20 | - | - |
| **K1** | 0.25 | - | - |
| **L** | 0.25 | 0.35 | 0.30 |
| **L1** | 0.30 | 0.40 | 0.35 |
| **Z** | - | - | 0.075 |
| **Z1** | - | - | 0.075 |
| **All Dimensions in mm** | | | |



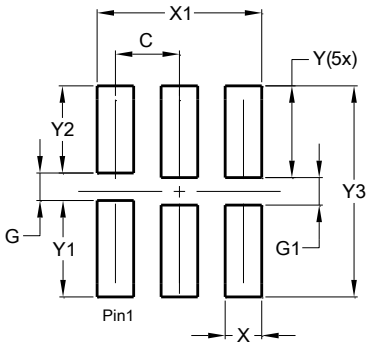

| Dimensions | Value (in mm) |
|---|---|
| **G** | 0.100 |
| **G1** | 0.050 |
| **G2** | 0.150 |
| **X** | 0.150 |
| **X1** | 0.750 |
| **Y** | 0.525 |
| **Y1** | 0.475 |
| **Y2** | 1.150 |

## X2-DFN1010-6 Package Outline Dimensions and Suggested Pad Layout

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.



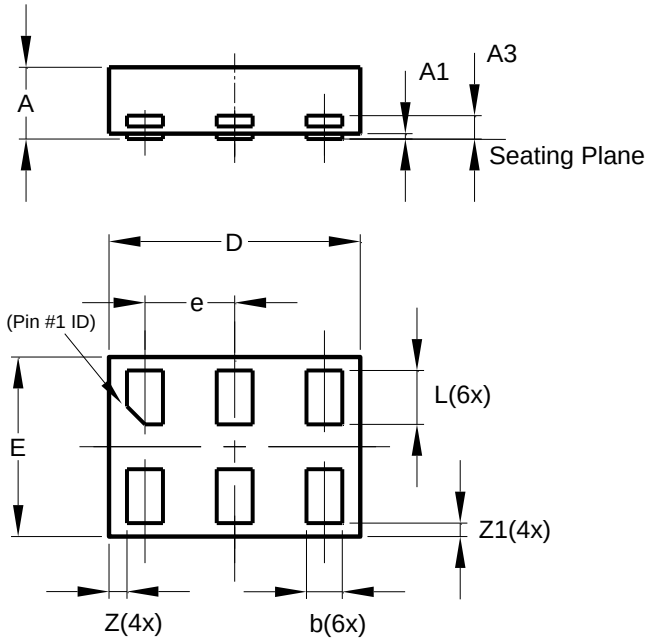

| X2-DFN1010-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | — | 0.40 | 0.39 |
| **A1** | 0.00 | 0.05 | 0.02 |
| **A3** | — | — | 0.13 |
| **b** | 0.14 | 0.20 | 0.17 |
| **b1** | 0.05 | 0.15 | 0.10 |
| **D** | 0.95 | 1.05 | 1.00 |
| **E** | 0.95 | 1.05 | 1.00 |
| **e** | — | — | 0.35 |
| **L** | 0.35 | 0.45 | 0.40 |
| **K** | 0.15 | — | — |
| **Z** | — | — | 0.065 |
| **All Dimensions in mm** | | | |



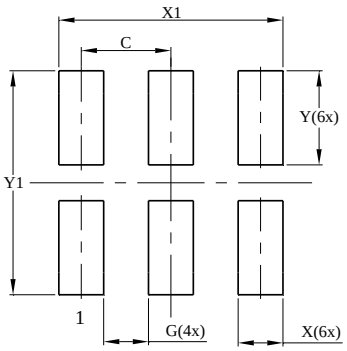

| Dimensions | Value (in mm) |
|---|---|
| **C** | 0.350 |
| **G** | 0.150 |
| **G1** | 0.150 |
| **X** | 0.200 |
| **X1** | 0.900 |
| **Y** | 0.500 |
| **Y1** | 0.525 |
| **Y2** | 0.475 |
| **Y3** | 1.150 |

## X2-DFN1410-6 Package Outline Dimensions and Suggested Pad Layout

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.




| X2-DFN1410-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | — | 0.40 | 0.39 |
| **A1** | 0.00 | 0.05 | 0.02 |
| **A3** | — | — | 0.13 |
| **b** | 0.15 | 0.25 | 0.20 |
| **D** | 1.35 | 1.45 | 1.40 |
| **E** | 0.95 | 1.05 | 1.00 |
| **e** | — | — | 0.50 |
| **L** | 0.25 | 0.35 | 0.30 |
| **Z** | — | — | 0.10 |
| **Z1** | 0.045 | 0.105 | 0.075 |
| **All Dimensions in mm** | | | |




| Dimensions | Value (in mm) |
|---|---|
| **C** | 0.500 |
| **G** | 0.250 |
| **X** | 0.250 |
| **X1** | 1.250 |
| **Y** | 0.525 |
| **Y1** | 1.250 |

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