**EN:** This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

## SINGLE BUFFER/DRIVER WITH OPEN DRAIN OUTPUT

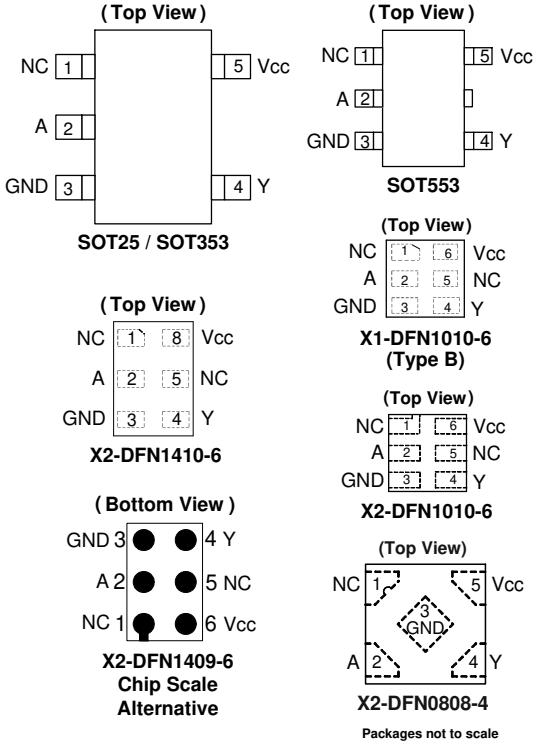
## Description

The 74LVC1G07 is a single buffer gate with an open-drain output. The device is designed for operation with a power supply range of 1.65V to 5.5V. The input is tolerant to 5.5V allowing this device to be used in a mixed voltage environment. 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 open-drain output can be connected to other open drain outputs to implement active-low wired-OR or active-high wired-AND functions. The maximum sink current is 32mA.

## Features

- Wide Supply Voltage Range from 1.65 to 5.5V
- ± 24mA Output Drive at 3.3V
- CMOS Low Power Consumption
- $I_{OFF}$ Supports Partial-Power-Down Mode Operation
- Inputs Accept Up to 5.5V
- ESD Protection Tested 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
- Range of Package Options
- Direct Interface with TTL Levels
- **Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

## Pin Assignments




## Applications

- Voltage Level Shifting
- General Purpose Logic
- Power Down Signal Isolation
- 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.


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## Ordering Information (Note 4)

74 LVC1G 07 XXX -7

**Logic Device**
- 74 : Logic Prefix
- LVC : 1.65 to 5.5 V Logic Family
- 1G : One Gate

**Function**
- 07 : 1-Input Buffer with open drain output

**Package**
- W5 : SOT25
- SE : SOT353
- Z : SOT553
- FS3 : X2-DFN0808-4
- FW5 : X1-DFN1010-6 (Type B)
- FW4 :X2-DFN1010-6
- FX4 : X2- DFN1409-6
- FZ4 : X2- DFN1410-6

**Packing**
- -7 : 7” Tape & Reel

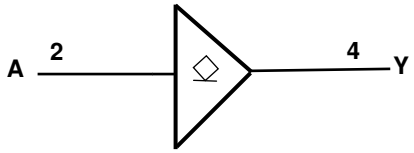
| Part Number | Package Code | Package (Notes 5 & 6) | Package Size | 7” Tape and Reel | |
|---|---|---|---|---|---|
| | | | | Quantity | Part Number Suffix |
| 74LVC1G07W5-7 | W5 | SOT25 | 3.0mm x 2.8mm x 1.2mm 0.95 mm lead pitch | 3,000/Tape & Reel | -7 |
| 74LVC1G07SE-7 | SE | SOT353 | 2.0mm x 2.0mm x 1.1mm 0.65 mm lead pitch | 3,000/Tape & Reel | -7 |
| 74LVC1G07Z-7 | Z | SOT553 | 1.6mm x 1.6 mm x 0.62mm 0.5 mm lead pitch | 4,000/Tape & Reel | -7 |
| 74LVC1G07FS3-7 | FS3 | X2-DFN0808-4 | 0.8mm x 0.8 mm x 0.35mm 0.5 mm pad pitch (diamond) | 5,000/Tape & Reel | -7 |
| 74LVC1G07FW5-7 | FW5 | X1-DFN1010-6 (Type B) | 1.0mm x 1.0mm x 0.5mm 0.35 mm pad pitch | 5,000/Tape & Reel | -7 |
| 74LVC1G07FW4-7 | FW4 | X2-DFN1010-6 | 1.0mm x 1.0mm x 0.4mm 0.35 mm pad pitch | 5,000/Tape & Reel | -7 |
| 74LVC1G07FX4-7 | FX4 | X2-DFN1409-6 Chip scale alternative | 1.4mm x 0.9mm x 0.4mm 0.5 mm pad pitch | 5,000/Tape & Reel | -7 |
| 74LVC1G07FZ4-7 | FZ4 | X2-DFN1410-6 | 1.4mm x 1.0mm x 0.4mm 0.5 mm pad pitch | 5,000/Tape & Reel | -7 |

Notes: 4. For packaging details, go to our website at http://www.diodes.com/products/packages.html.
5. Pad layout as shown on Diodes Inc. suggested pad layout which can be found on our website at http://www.diodes.com/package-outlines.html.
6. The taping orientation is located on our website at http://www.diodes.com/datasheets/ap02007.pdf.

## Pin Descriptions

| Pin Name | Description |
|---|---|
| NC | No Connection |
| A | Data Input |
| GND | Ground |
| Y | Data Output |
| $V_{CC}$ | Supply Voltage |

## Logic Diagram




## Function Table

| Inputs | Output |
|---|---|
| **A** | **Y** |
| H | Z |
| L | L |


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## Absolute Maximum Ratings (Notes 7 & 8) (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Description | 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 6.5 | V |
| $V_I$ | Input Voltage Range | -0.5 to 6.5 | V |
| $V_O$ | Voltage Applied to Output in High Impedance or $I_{OFF}$ State | -0.5 to 6.5 | 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 | -50 | mA |
| $I_O$ | Continuous Output Current | ±50 | mA |
| $I_{CC}$, $I_{GN}$ | Continuous Current Through $V_{CC}$ or GND | ±100 | mA |
| $T_J$ | Operating Junction Temperature | -40 to +150 | °C |
| $T_{STG}$ | Storage Temperature | -65 to +150 | °C |

Notes: 7. 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.
8. 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 9) (@$T_A$ = +25°C, unless otherwise specified.)

| Symbol | Parameter | | Min | Max | Unit |
|---|---|---|---|---|---|
| $V_{CC}$ | Operating Voltage | Operating | 1.65 | 5.5 | V |
| | | Data retention only | 1.5 | — | V |
| $V_{IH}$ | High-level Input Voltage | $V_{CC}$ = 1.65V to 1.95V | 0.65 x $V_{CC}$ | — | V |
| | | $V_{CC}$ = 2.3V to 2.7V | 1.7 | — | |
| | | $V_{CC}$ = 3V to 3.6V | 2 | — | |
| | | $V_{CC}$ = 4.5V to 5.5V | 0.7 x $V_{CC}$ | — | |
| $V_{IL}$ | Low-Level Input Voltage | $V_{CC}$ = 1.65V to 1.95V | — | 0.35 x $V_{CC}$ | V |
| | | $V_{CC}$ = 2.3V to 2.7V | — | 0.7 | |
| | | $V_{CC}$ = 3V to 3.6V | — | 0.8 | |
| | | $V_{CC}$ = 4.5V to 5.5V | — | 0.3 x $V_{CC}$ | |
| $V_I$ | Input Voltage | | 0 | 5.5 | V |
| $V_O$ | Output Voltage | | 0 | 5.5 | V |
| $I_{OL}$ | Low-Level Output Current | $V_{CC}$ = 1.65V | — | 4 | mA |
| | | $V_{CC}$ = 2.3V | — | 8 | |
| | | $V_{CC}$ = 2.7V | — | 12 | |
| | | $V_{CC}$ = 3V | — | 16 | |
| | | | — | 24 | |
| | | $V_{CC}$ = 4.5V | — | 32 | |
| Δt/ΔV | Input Transition Rise or Fall Rate | $V_{CC}$ = 1.8V ± 0.15V, 2.5V ± 0.2V | — | 20 | ns/V |
| | | $V_{CC}$ = 3.3V ± 0.3V | — | 10 | |
| | | $V_{CC}$ = 5V ± 0.5V | — | 5 | |
| $T_A$ | Operating Free-Air Temperature | — | -40 | +125 | °C |

Note: 9. Unused inputs should be held at $V_{CC}$ or Ground.


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## Electrical Characteristics (All typical values are at $V_{CC}$ = 3.3V, $T_A$ = +25°C)

| Symbol | Parameter | Test Conditions | $V_{CC}$ | -40°C to +85°C | | | -40°C to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | |
| $V_{OL}$ | Low Level Output Voltage | $I_{OL}$ = 100µA | 1.65V to 5.5V | — | — | 0.1 | — | 0.1 | V |
| | | $I_{OL}$ = 4mA | 1.65V | — | — | 0.45 | — | 0.7 | |
| | | $I_{OL}$ = 8mA | 2.3V | — | — | 0.3 | — | 0.45 | |
| | | $I_{OL}$ = 12mA | 2.7V | — | — | 0.4 | — | 0.6 | |
| | | $I_{OL}$ = 16mA | 3V | — | — | 0.4 | — | 0.6 | |
| | | $I_{OL}$ = 24mA | | — | — | 0.55 | — | 0.8 | |
| | | $I_{OL}$ = 32mA | 4.5V | — | — | 0.55 | — | .8 | |
| $I_I$ | Input Current | $V_I$ = 5.5 V or GND | 0 to 5.5V | — | ± 0.1 | ±5 | — | ± 100 | µA |
| $I_{OFF}$ | Power Down Leakage Current | $V_I$ or $V_O$ = 5.5V | 0V | — | — | ±10 | — | ±200 | µA |
| $I_{CC}$ | Supply Current | $V_I$ = 5.5V or GND<br>$I_O$=0 | 5.5V | — | 0.1 | 10 | — | 200 | µA |
| $\Delta I_{CC}$ | Additional Supply Current | Input at $V_{CC}$ –0.6 V | 3V to 5.5V | — | — | 500 | — | 5,000 | µA |
| $C_i$ | Input Capacitance | $V_i$ = $V_{CC}$ – or GND | 3.3V | — | 5 | — | — | — | pF |

## Package Characteristics (All typical values are at $V_{CC}$ = 3.3V, $T_A$ = +25°C)

| Symbol | Parameter | Test Conditions | $V_{CC}$ | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|---|
| $\theta_{JA}$ | Thermal Resistance Junction-to-Ambient | SOT25 | (Note 10) | — | 204 | — | °C/W |
| | | SOT353 | | — | 371 | — | |
| | | SOT553 | | — | 231 | — | |
| | | X2-DFN0808-4 | | — | 400 | — | |
| | | X1-DFN1010-6 (Type B) | | — | 435 | — | |
| | | X2-DFN1010-6 | | — | 445 | — | |
| | | X2-DFN1409-6 | | — | 470 | — | |
| | | X2-DFN1410-6 | | — | 460 | — | |
| $\theta_{JC}$ | Thermal Resistance Junction-to-Case | SOT25 | (Note 10) | — | 52 | — | °C/W |
| | | SOT353 | | — | 143 | — | |
| | | SOT553 | | — | 105 | — | |
| | | X2-DFN0808-4 | | — | 225 | — | |
| | | X1-DFN1010-6 (Type B) | | — | 250 | — | |
| | | X2-DFN1010-6 | | — | 250 | — | |
| | | X2-DFN1409-6 | | — | 275 | — | |
| | | X2-DFN1410-6 | | — | 265 | — | |

Note: 10. Test condition for each of the 8 package types: Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.


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## Switching Characteristics

Figure 1 Typical Values at $T_A$ = +25°C and nominal voltages 1.8V, 2.5V, 2.7V, 3.3V, and 5.0V.

| Parameter | From Input | To Output | $V_{CC}$ | $T_A$ = -40°C to +85°C | | | $T_A$ = -40°C to +125°C | | Unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | |
| $t_{pd}$ | A or B | Y | 1.8V ± 0.15V | 1.0 | 3.0 | 6.5 | 1.0 | 8.5 | ns |
| | | | 2.5V ± 0.2V | 0.5 | 1.9 | 4.0 | 0.5 | 5.5 | |
| | | | 2.7V | 0.5 | 2.5 | 4.5 | 0.5 | 6.0 | |
| | | | 3.3 V ± 0.3V | 0.5 | 2.3 | 4.0 | 0.5 | 5.5 | |
| | | | 5.0V ± 0.5V | 0.5 | 1.7 | 3.0 | 0.5 | 4.0 | |

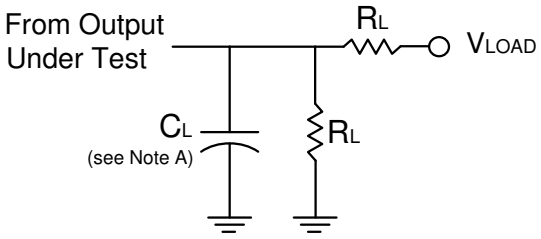
## Operating Characteristics

$T_A$ = +25°C

| Parameter | | Test Conditions | $V_{CC}$ = 1.8V | $V_{CC}$ = 2.5V | $V_{CC}$ = 3.3V | $V_{CC}$ = 5V | Unit |
|---|---|---|---|---|---|---|---|
| | | | Typ | Typ | Typ | Typ | |
| $C_{pd}$ | Power Dissipation Capacitance | f = 10MHz | 3 | 3 | 4 | 6 | pF |

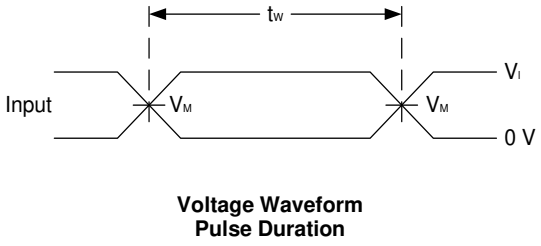

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## Parameter Measurement Information

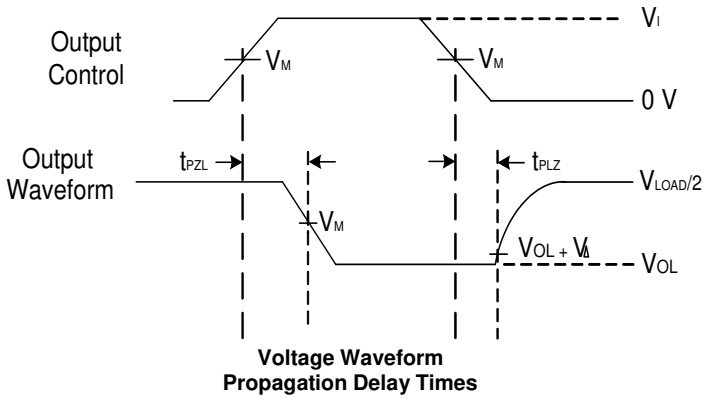



| TEST | Condition |
|---|---|
| $t_{PLZ}$ (see Notes D and E) | $V_{LOAD}$ |
| $t_{PZL}$(see Notes D and F) | $V_{LOAD}$ |

| $V_{CC}$ | Inputs | | $V_M$ | $V_{LOAD}$ | $C_L$ | $R_L$ | $V_\Delta$ |
|---|---|---|---|---|---|---|---|
| | $V_I$ | $t_r/t_f$ | | | | | |
| 1.8V±0.15V | $V_{CC}$ | ≤2ns | $V_{CC}/2$ | 2 x $V_{CC}$ | 30pF | 1KΩ | 0.15V |
| 2.5V±0.2V | $V_{CC}$ | ≤2ns | $V_{CC}/2$ | 2 x $V_{CC}$ | 30pF | 500Ω | 0.15V |
| 2.7V | 2.7V | ≤2.5ns | 1.5V | 6V | 50pF | 500Ω | 0.3V |
| 3.3V±0.3V | 3V | ≤2.5ns | 1.5V | 6V | 50pF | 500Ω | 0.3V |
| 5V±0.5V | $V_{CC}$ | ≤2.5ns | $V_{CC}/2$ | 2 x $V_{CC}$ | 50pF | 500Ω | 0.3V |




**Voltage Waveform**
**Pulse Duration**




**Voltage Waveform**
**Propagation Delay Times**

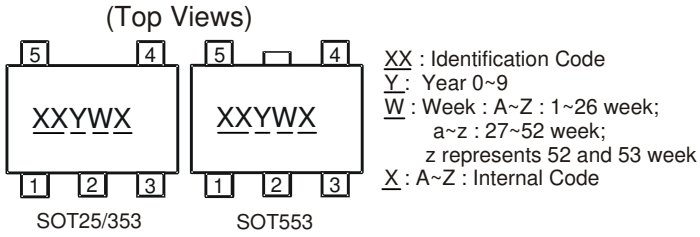
**Figure 1. Load Circuit and Voltage Waveforms**

Notes:
A. Includes test lead and test apparatus capacitance
B. All pulses are supplied at pulse repetition rate ≤ 10 MHz
C. The inputs are measured one at a time with one transition per measurement
D. For the open drain device $t_{PLZ}$ and $t_{PZL}$ are the same as $t_{PD}$
E. $t_{PZL}$ is measured at $V_M$
F. $t_{PLZ}$ is measured at $V_{OL} + V_\Delta$


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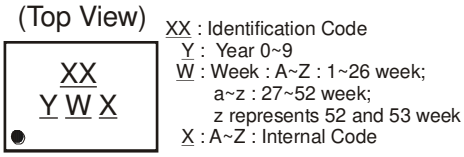
## Marking Information

**(1) SOT25, SOT353 and SOT553**




| Part Number | Package | Identification Code |
|---|---|---|
| 74LVC1G07W5-7 | SOT25 | UN |
| 74LVC1G07SE-7 | SOT353 | UN |
| 74LVC1G07Z-7 | SOT553 | UN |

**(2) DFN Packages**



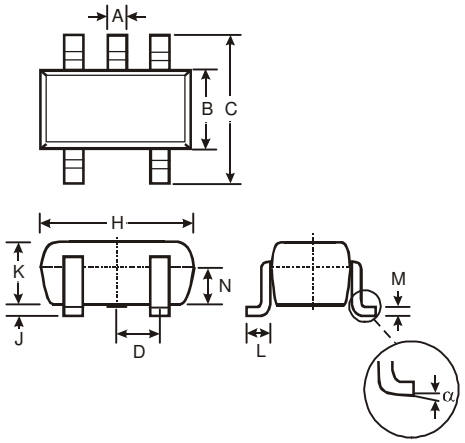

| Part Number | Package | Identification Code |
|---|---|---|
| 74LVC1G07FS3-7 | X2-DFN0808-4 | WN |
| 74LVC1G07FW5-7 | X1-DFN1010-6 (Type B) | V6 |
| 74LVC1G07FW4-7 | X2-DFN1010-6 | UN |
| 74LVC1G07FX4-7 | X2-DFN1409-6 | ME |
| 74LVC1G07FZ4-7 | X2-DFN1410-6 | UN |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT25**

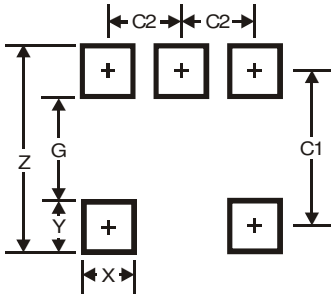



| SOT25 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | 0.35 | 0.50 | 0.38 |
| **B** | 1.50 | 1.70 | 1.60 |
| **C** | 2.70 | 3.00 | 2.80 |
| **D** | - | - | 0.95 |
| **H** | 2.90 | 3.10 | 3.00 |
| **J** | 0.013 | 0.10 | 0.05 |
| **K** | 1.00 | 1.30 | 1.10 |
| **L** | 0.35 | 0.55 | 0.40 |
| **M** | 0.10 | 0.20 | 0.15 |
| **N** | 0.70 | 0.80 | 0.75 |
| **α** | 0° | 8° | - |
| **All Dimensions in mm** | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT25**



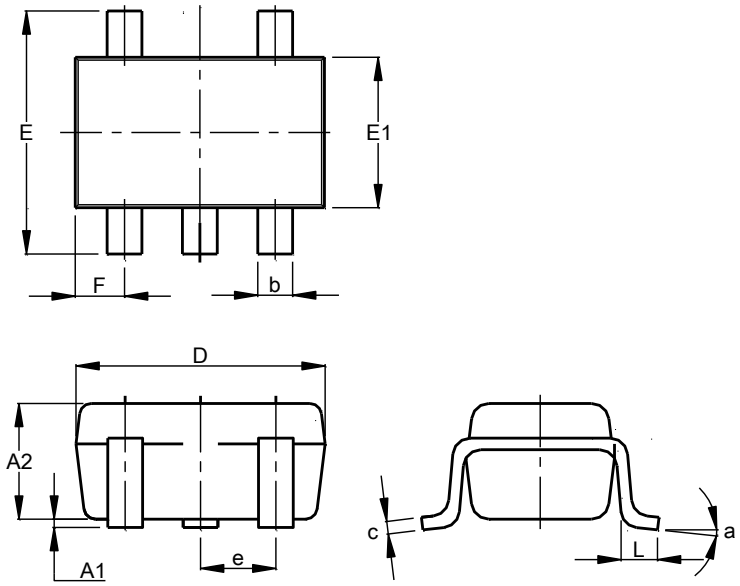

| Dimensions | Value |
|---|---|
| **Z** | 3.20 |
| **G** | 1.60 |
| **X** | 0.55 |
| **Y** | 0.80 |
| **C1** | 2.40 |
| **C2** | 0.95 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT353**

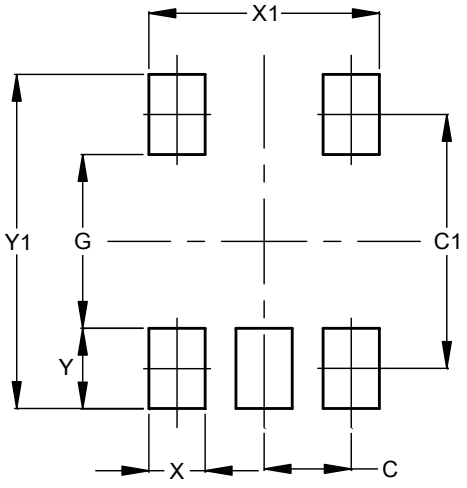



| SOT353 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A1** | 0.00 | 0.10 | 0.05 |
| **A2** | 0.90 | 1.00 | 1.00 |
| **b** | 0.10 | 0.30 | 0.25 |
| **c** | 0.10 | 0.22 | 0.11 |
| **D** | 1.80 | 2.20 | 2.15 |
| **E** | 2.00 | 2.20 | 2.10 |
| **E1** | 1.15 | 1.35 | 1.30 |
| **e** | 0.650 BSC | | |
| **F** | 0.40 | 0.45 | 0.425 |
| **L** | 0.25 | 0.40 | 0.30 |
| **a** | 0° | 8° | -- |
| **All Dimensions in mm** | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT353**



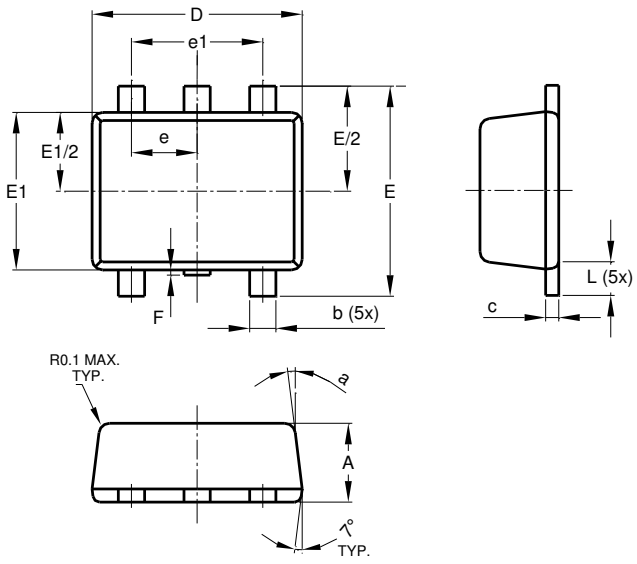

| Dimensions | Value (in mm) |
|---|---|
| **C** | 0.650 |
| **C1** | 1.900 |
| **G** | 1.300 |
| **X** | 0.420 |
| **X1** | 1.720 |
| **Y** | 0.600 |
| **Y1** | 2.500 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT553**

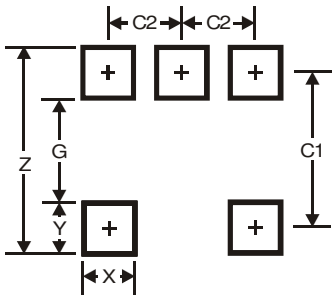



| SOT553 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | 0.55 | 0.62 | 0.60 |
| **b** | 0.15 | 0.30 | 0.20 |
| **c** | 0.10 | 0.18 | 0.15 |
| **D** | 1.50 | 1.70 | 1.60 |
| **E** | 1.55 | 1.70 | 1.60 |
| **E1** | 1.10 | 1.25 | 1.20 |
| **e** | 0.50 BSC | | |
| **e1** | 1.00 BSC | | |
| **F** | 0.00 | 0.10 | — |
| **L** | 0.10 | 0.30 | 0.20 |
| **a** | 6° | 8° | 7° |
| All Dimensions in mm | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**SOT553**



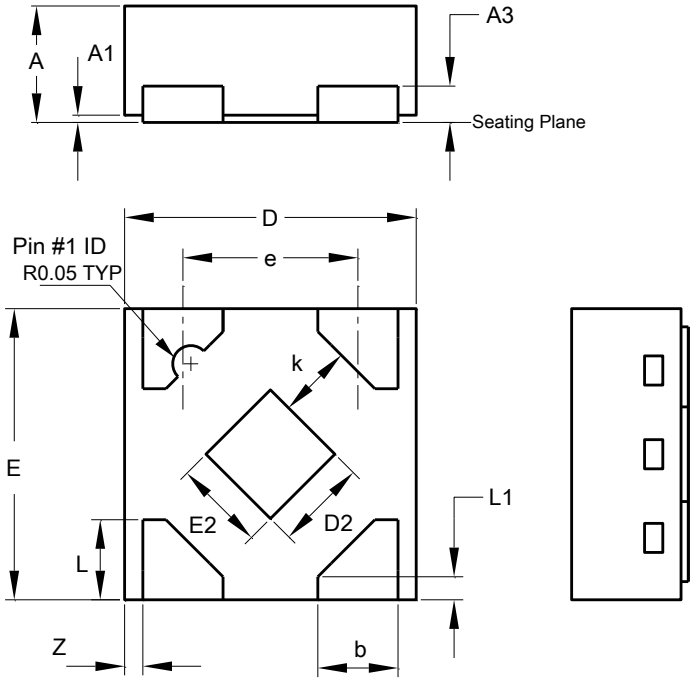

| Dimensions | Value |
|---|---|
| **Z** | 2.2 |
| **G** | 1.2 |
| **X** | 0.375 |
| **Y** | 0.5 |
| **C1** | 1.7 |
| **C2** | 0.5 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN0808-4**

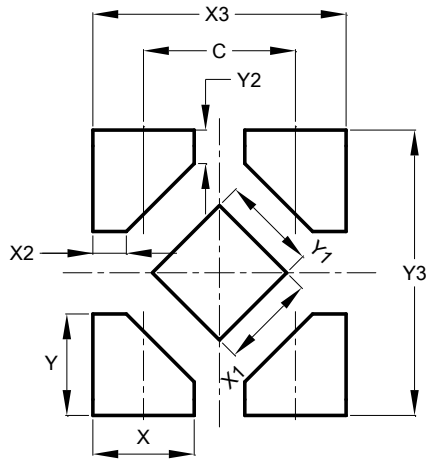



| X2-DFN0808-4 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | 0.25 | 0.35 | 0.30 |
| **A1** | 0 | 0.04 | 0.02 |
| **A3** | - | - | 0.13 |
| **b** | 0.17 | 0.27 | 0.22 |
| **D** | 0.75 | 0.85 | 0.80 |
| **D2** | 0.15 | 0.35 | 0.25 |
| **E** | 0.75 | 0.85 | 0.80 |
| **E2** | 0.15 | 0.35 | 0.25 |
| **e** | - | - | 0.48 |
| **k** | 0.20 | - | - |
| **L** | 0.17 | 0.27 | 0.22 |
| **L1** | 0.02 | 0.12 | 0.07 |
| **z** | - | - | 0.05 |
| **All Dimensions in mm** | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN0808-4**



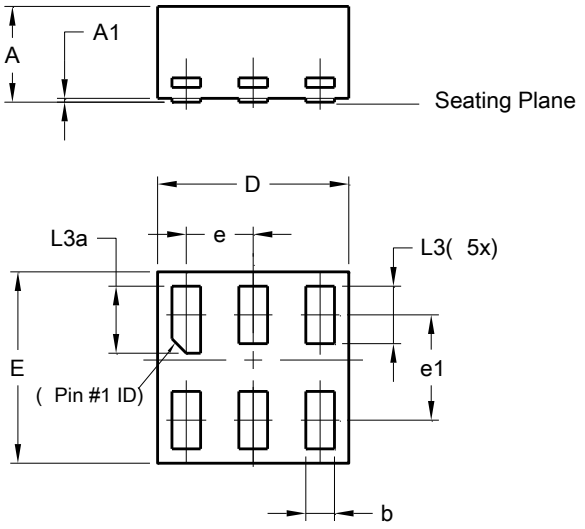

| Dimensions | Value |
|---|---|
| **C** | 0.480 |
| **X** | 0.320 |
| **X1** | 0.300 |
| **X2** | 0.106 |
| **X3** | 0.800 |
| **Y** | 0.320 |
| **Y1** | 0.300 |
| **Y2** | 0.106 |
| **Y3** | 0.900 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X1-DFN1010-6 (Type B)**

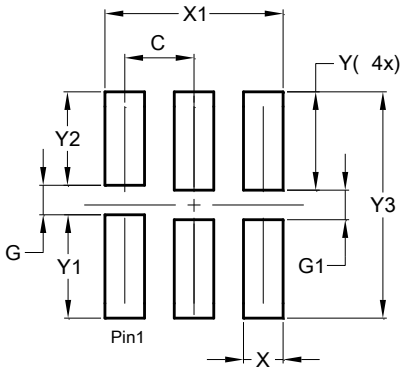



| X1-DFN1010-6 (Type B) | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | - | 0.50 | 0.39 |
| **A1** | - | 0.04 | - |
| **b** | 0.12 | 0.20 | 0.15 |
| **D** | 0.95 | 1.050 | 1.00 |
| **E** | 0.95 | 1.050 | 1.00 |
| **e** | 0.35 BSC | | |
| **e1** | 0.55 BSC | | |
| **L3** | 0.27 | 0.30 | 0.30 |
| **L3a** | 0.32 | 0.40 | 0.35 |
| **All Dimensions in mm** | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X1-DFN1010-6 (Type B)**



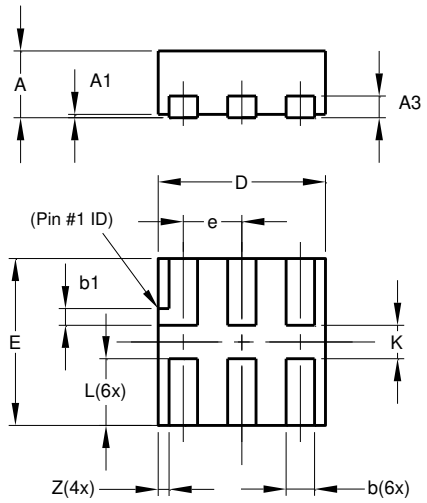

| Dimensions | Value (in mm) |
|---|---|
| **C** | 0.350 |
| **G** | 0.150 |
| **G1** | 0.150 |
| **X** | 0.200 |
| **X1** | 0.900 |
| **Y** | 0.500 |
| **Y1** | 0.525 |
| **Y2** | 0.475 |
| **Y3** | 1.150 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1010-6**

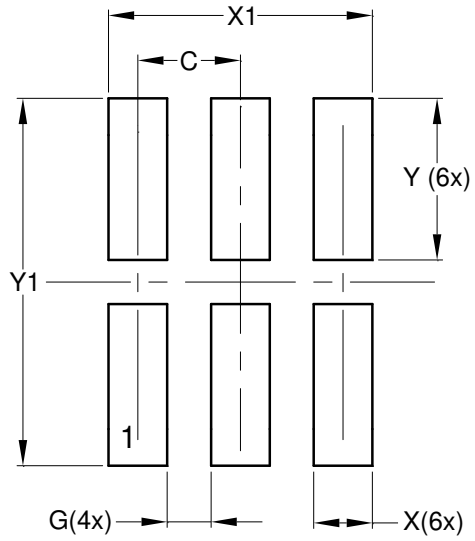



| X2-DFN1010-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | — | 0.40 | 0.39 |
| **A1** | 0.00 | 0.05 | 0.02 |
| **A3** | — | — | 0.13 |
| **b** | 0.14 | 0.20 | 0.17 |
| **b1** | 0.05 | 0.15 | 0.10 |
| **D** | 0.95 | 1.05 | 1.00 |
| **E** | 0.95 | 1.05 | 1.00 |
| **e**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

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1010-6**



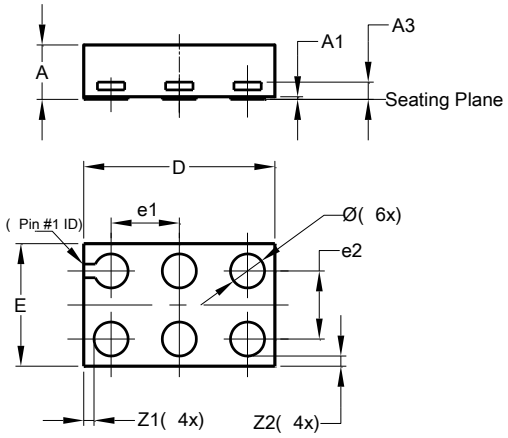

| Dimensions | Value (in mm) |
|---|---|
| **C** | 0.350 |
| **G** | 0.150 |
| **X** | 0.200 |
| **X1** | 0.900 |
| **Y** | 0.550 |
| **Y1** | 1.250 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1409-6 CHIP SCALE ALTERNATIVE**

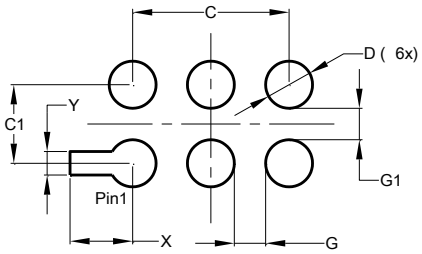



| X2-DFN1409-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | - | 0.40 | 0.39 |
| **A1** | 0 | 0.05 | 0.02 |
| **A3** | - | - | 0.13 |
| **Ø** | 0.20 | 0.30 | 0.25 |
| **D** | 1.35 | 1.45 | 1.40 |
| **E** | 0.85 | 0.95 | 0.90 |
| **e1** | - | - | 0.50 |
| **e2** | - | - | 0.50 |
| **Z1** | - | - | 0.075 |
| **Z2** | - | - | 0.075 |
| **All Dimensions in mm** | | | |

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1409-6 CHIP SCALE ALTERNATIVE**



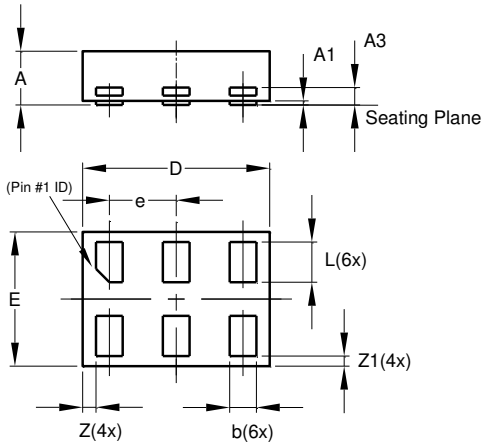

| Dimensions | Value (in mm) |
|---|---|
| **C** | 1.000 |
| **C1** | 0.500 |
| **D** | 0.300 |
| **G** | 0.200 |
| **G1** | 0.200 |
| **X** | 0.400 |
| **Y** | 0.150 |


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## Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1410-6**

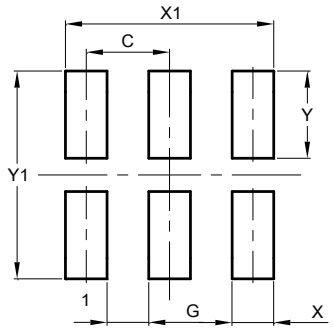



| X2-DFN1410-6 | | | |
|---|---|---|---|
| **Dim** | **Min** | **Max** | **Typ** |
| **A** | — | 0.40 | 0.39 |
| **A1** | 0.00 | 0.05 | 0.02 |
| **A3** | — | — | 0.13 |
| **b** | 0.15 | 0.25 | 0.20 |
| **D** | 1.35 | 1.45 | 1.40 |
| **E** | 0.95 | 1.05 | 1.00 |
| **e** | — | — | 0.50 |
| **L** | 0.25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

## Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

**X2-DFN1410-6**




| 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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