

**FEATURES**

- Logic Translation
- Bi-Directional
- Invert / Non-Invert
- TTL-CMOS Convert
- 3V-5V convert
- Toroidal construction
- Low Profile
- Dual or Quad packs
- 700VDC Isolation

**DESCRIPTION**

The 1600 series are dual or quad isolation transformer packs for use in digital circuits. They are particularly suited to isolating microprocessor bus connections and performing logic level translation. Being completely passive, power savings are offered over opto-coupled or emitter follower solutions.

**SELECTION GUIDE**

Order Code	Type	Function	Pulse Width (max) uS	Turns Ratio	Primary Inductance (typ) 10kHz, 250mV mH	Interwinding Capacitance (typ) 100kHz pF	Package Style
<b>1600</b>	Quad Isolator	5V to 5V Logic Isolation	5	1:1	3	60	2
<b>1601</b>	Dual Isolator	5V to 5V Logic Isolation	5	1:1	3	60	1
<b>1620</b>	Quad Isolator	5V to 10V Logic Isolation	3.4	1:2	1.5	45	2
<b>1621</b>	Dual Isolator	5V to 10V Logic Isolation	3.4	1:2	1.5	45	1
<b>1630</b>	Quad Isolator	5V to 15V Logic Isolation	2.6	1:3	1	34	2
<b>1631</b>	Dual Isolator	5V to 15V Logic Isolation	2.6	1:3	1	34	1
<b>1635</b>	Quad Isolator	3.3V to 5V Logic Isolation	5	1:1.5	2	40	2
<b>1636</b>	Dual Isolator	3.3V to 5V Logic Isolation	5	1:1.5	2	40	1

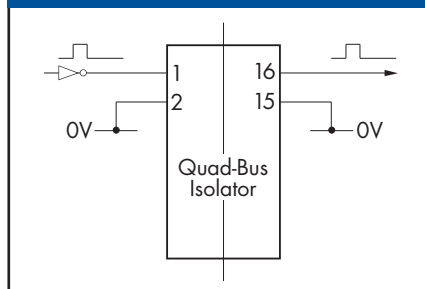
**SWITCHING CHARACTERISTICS, 5V LOGIC**

Parameter	Conditions	MAX	Units
Propagation delay, $t_{PD}$	LSTTL Buffer drive	5.0	ns
Low-level pulse width <sup>1</sup> , $t_{LPW}$	Other terminal to VCC	5.0	µs
High-level pulse width <sup>1</sup> , $t_{HPW}$	Other terminal to GND	5.0	µs

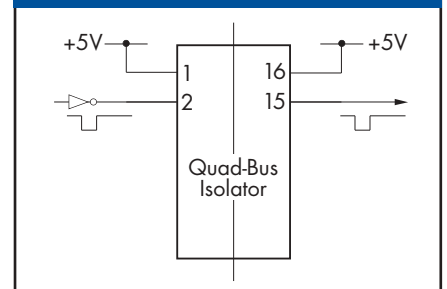
**ABSOLUTE MAXIMUM RATINGS**

Operating free air temperature range	0°C to 70°C
Storage temperature range	-40°C to 125°C
Lead Temperature 1.5mm from case for 10 seconds	300°C
Isolation voltage (flash tested for 1 second)	700VDC
Insulation resistance at 500VDC	>10GΩ

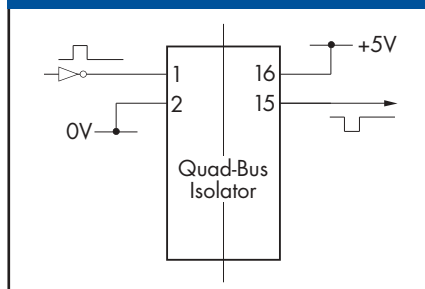
**NON-INVERTED +VE GOING PULSE**



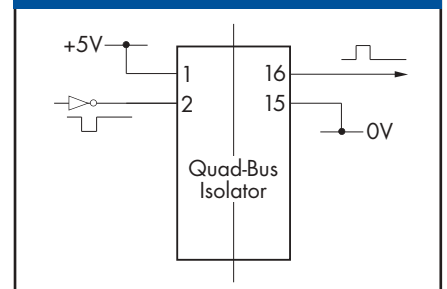
**NON-INVERTED -VE GOING PULSE**



**INVERTED +VE GOING PULSE**



**INVERTED -VE GOING PULSE**

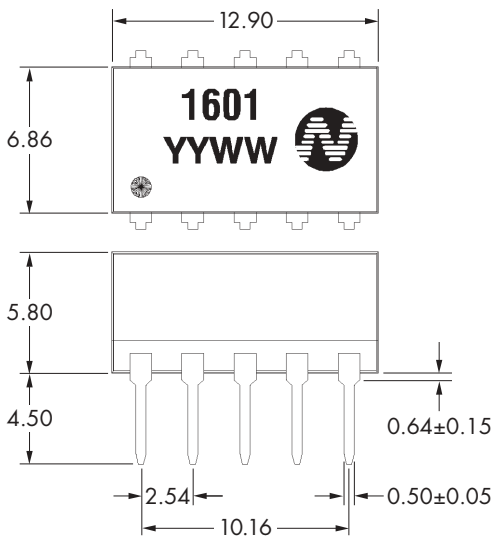


<sup>1</sup> The maximum pulse width limit to be applied to the repetition curve. All specifications typical at  $T_A = 25^\circ\text{C}$

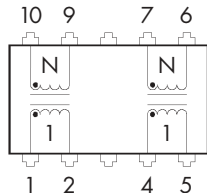
# 1600 SERIES

Dual and Quad Data-bus Isolators

## MECHANICAL DIMENSIONS (PACKAGE STYLE 1)

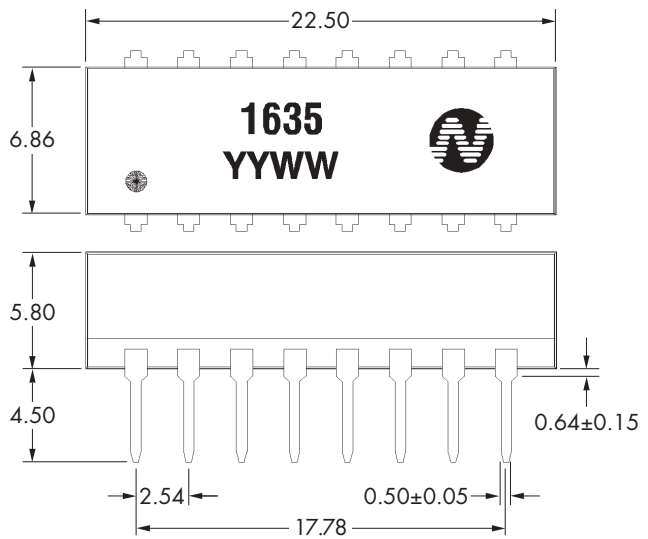


10 PIN DIL (TOP VIEW)

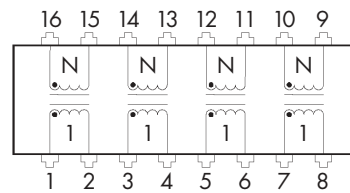


All dimensions in mm (±0.25mm unless otherwise stated)

## MECHANICAL DIMENSIONS (PACKAGE STYLE 2)

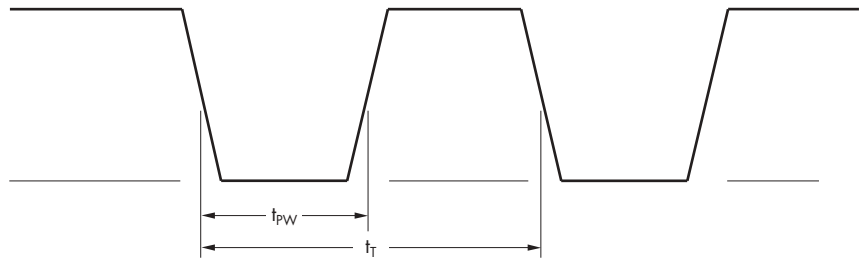
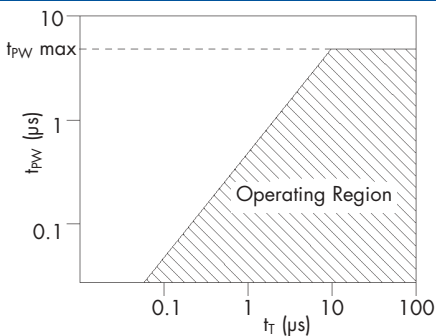


16 PIN DIL (TOP VIEW)



All dimensions in mm (±0.25mm unless otherwise stated)

## REPETITION RATE VERSUS PULSE WIDTH CURVE



C&D Technologies (NCL) Limited reserve the right to alter or improve the specification, internal design or manufacturing process at any time, without notice. Please check with your supplier or visit our web site to ensure that you have the current and complete specification for your product before use.

© C&D Technologies (NCL) Limited 2000

NMP 1600.2

No part of this publication may be copied, transmitted or stored in a retrieval system or reproduced in any way including, but not limited to, photography, photocopy, magnetic or other recording means, without prior written permission from C&D Technologies (NCL) Limited.

Instructions for use are available from [www.cdpoweronline.com](http://www.cdpoweronline.com)

**C&D Technologies (NCL) Ltd**  
Tanners Drive, Blakelands North  
Milton Keynes MK14 5BU, England  
Tel: +44 (0)1908 615232  
Fax: +44 (0)1908 617545  
email: [info@cdtechno-ncl.com](mailto:info@cdtechno-ncl.com)

[www.cdpoweronline.com](http://www.cdpoweronline.com)

**C&D Technologies Inc.**  
3400 E Britannia Drive, Tucson,  
Arizona 85706, USA  
Tel: +1 (800) 547-2537  
Fax: +1 (520) 741-4598  
email: [sales@cdtechno.com](mailto:sales@cdtechno.com)

**C&D TECHNOLOGIES**  
Power Solutions