

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
1600	Quad Isolator	5V to 5V Logic Isolation	5	1:1	3	60	2
1601	Dual Isolator	5V to 5V Logic Isolation	5	1:1	3	60	1
1620	Quad Isolator	5V to 10V Logic Isolation	3.4	1:2	1.5	45	2
1621	Dual Isolator	5V to 10V Logic Isolation	3.4	1:2	1.5	45	1
1630	Quad Isolator	5V to 15V Logic Isolation	2.6	1:3	1	34	2
1631	Dual Isolator	5V to 15V Logic Isolation	2.6	1:3	1	34	1
1635	Quad Isolator	3.3V to 5V Logic Isolation	5	1:1.5	2	40	2
1636	Dual Isolator	3.3V to 5V Logic Isolation	5	1:1.5	2	40	1

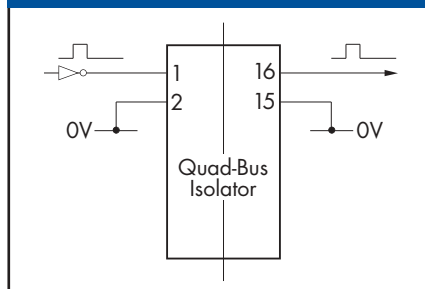
SWITCHING CHARACTERISTICS, 5V LOGIC

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

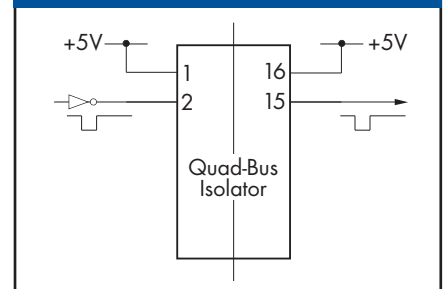
ABSOLUTE MAXIMUM RATINGS

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

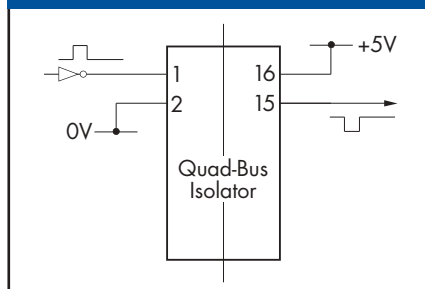
NON-INVERTED +VE GOING PULSE



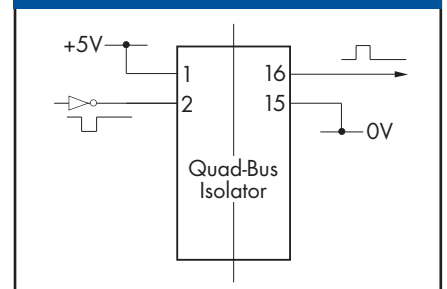
NON-INVERTED -VE GOING PULSE



INVERTED +VE GOING PULSE



INVERTED -VE GOING PULSE

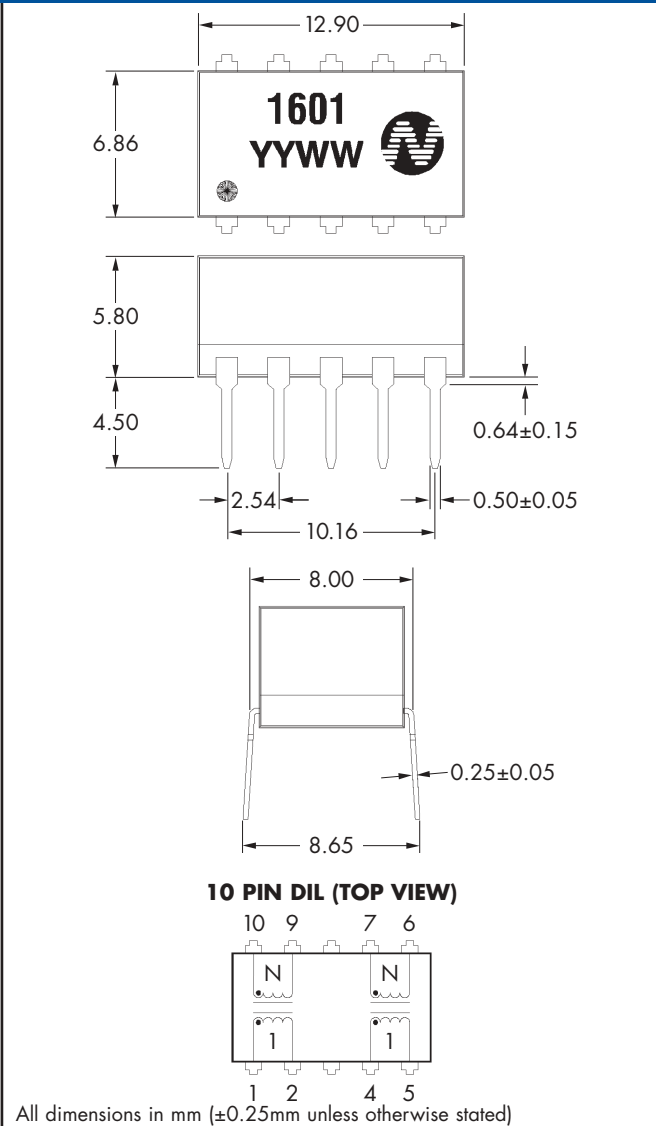


¹ The maximum pulse width limit to be applied to the repetition curve. All specifications typical at $T_A = 25^\circ\text{C}$

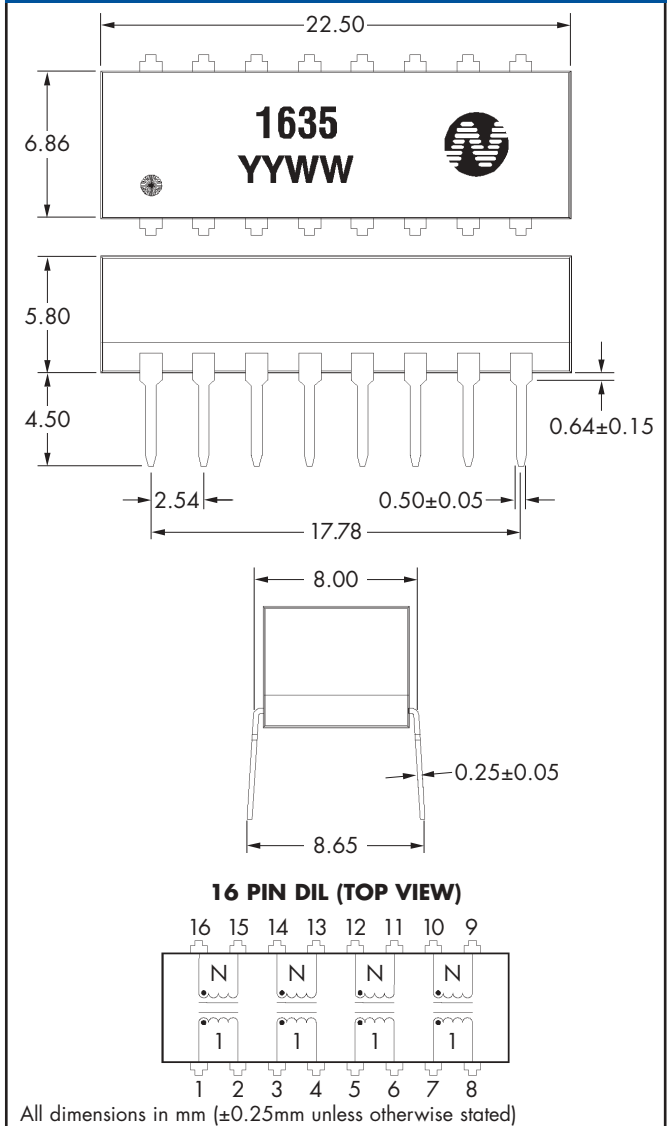
1600 SERIES

Dual and Quad Data-bus Isolators

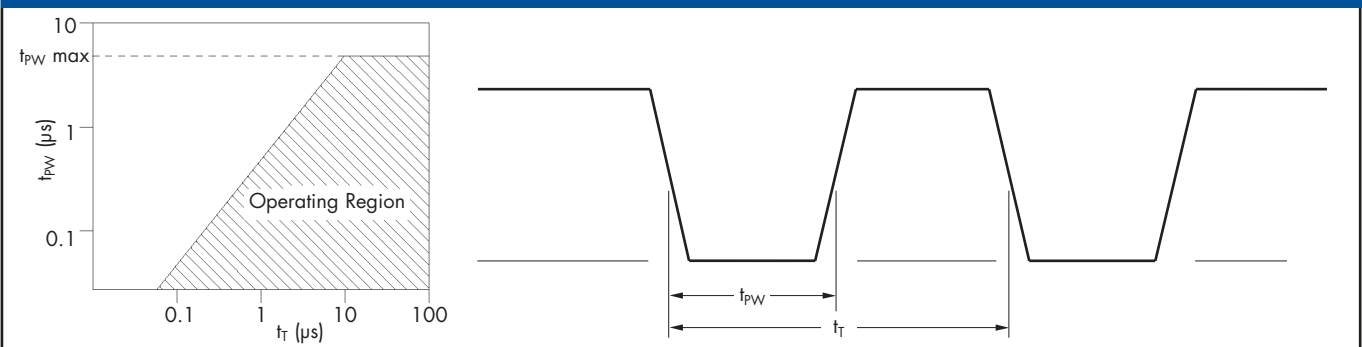
MECHANICAL DIMENSIONS (PACKAGE STYLE 1)



MECHANICAL DIMENSIONS (PACKAGE STYLE 2)



REPETITION RATE VERSUS PULSE WIDTH CURVE



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