

Electrical Specifications ($-40^{\circ}\text{C} \leq T_A \leq +85^{\circ}\text{C}$ unless otherwise specified)

INPUT CHARACTERISTICS	PVI Series	Units
Input Current Range (see figure 4)	2.0 to 50	mA (DC)
Maximum Forward Voltage Drop @ 10mA, 25°C (see figure 5)	1.4	V (DC)
Maximum Reverse Voltage	6.0	V(DC)
Maximum Reverse Current @ -6.0V (DC), 25°C	100	$\mu\text{A}(\text{DC})$
Maximum Pulsed Input Current @ 25°C (see figure 6)	1.0	A(peak)

OUTPUT CHARACTERISTICS	PVI Series	Units
Maximum Forward Voltage @ 10 μA	8.0 per channel	V(DC)
Maximum Reverse Current @ -10VDC	10	$\mu\text{A}(\text{DC})$

COUPLED CHARACTERISTICS	PVI5050N	PVI5080N	PVI1050N	Units
Minimum Open Circuit Voltage @ ILED = 10mA, 25°C, $R_L = >10\text{M}\Omega$ (see figures 1 to 2)	5.0		5.0/channel 10 series	V (DC)
Minimum Short Circuit Current @ ILED = 10mA, 25°C (see figures 1 to 2)	5.0	8.0	5.0 /channel 10 parallel	$\mu\text{A}(\text{DC})$
Maximum Capacitance (Input/Output)	1.0		2.0	pF
Maximum Ton Time @ ILED=10mA, CLOAD=10pF (See Figure7) RL>20MΩ RL=10MΩ RL=4.7MΩ	300			μS
	160			μS
	90			μS
Maximum Toff Time @ ILED=10mA, CLOAD=10pF (See Figure7)	220			μS

GENERAL CHARACTERISTICS	PVI5050N/5080N	PVI1050N	Units
Min. Dielectric Strength, Input-Output	4000	2500	V_{RMS}
Min. Dielectric Strength, Output-to-Output	1200		V_{DC}
Min. Insulation Resistance, Input-to-Output @ $T_A = +25^{\circ}\text{C}$, 50%RH, 100V _{DC}	10^{12}		Ω
Max. Pin Soldering Temperature (10 seconds max.)	+260		$^{\circ}\text{C}$
Ambient Temperature Range: Operating	-40 to +85		$^{\circ}\text{C}$
	Storage		$^{\circ}\text{C}$

International Rectifier does not recommend the use of this product in aerospace, avionics, military or life support applications. Users of this International Rectifier product in such applications assume all risks of such use and indemnify International Rectifier against all damages resulting from such use.

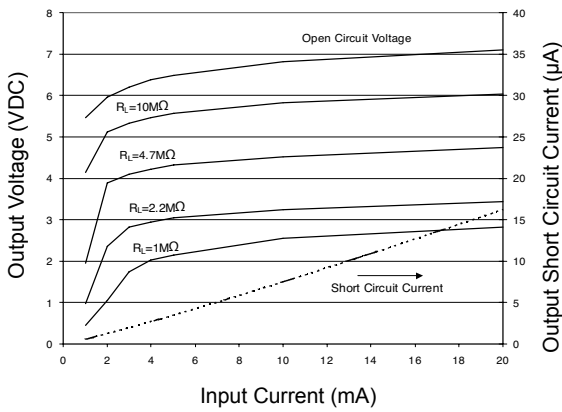


Figure 1. PVI5050N, PVI1050N Typical Output Characteristics

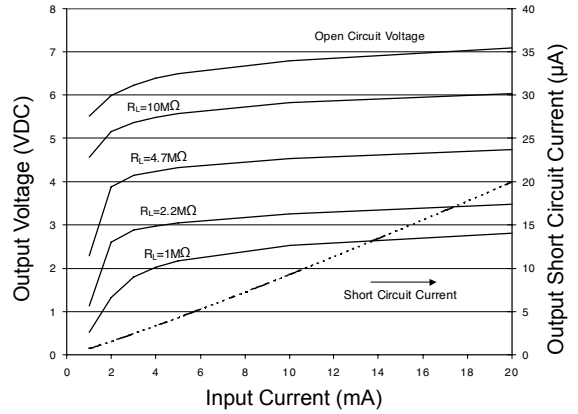


Figure 2. PVI5080N Typical Output Characteristics

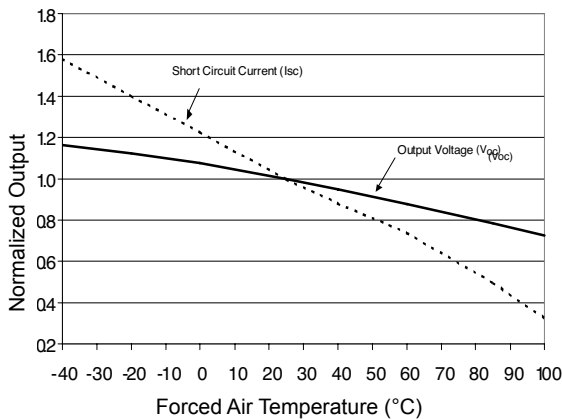


Figure 3. Typical Variation of Output

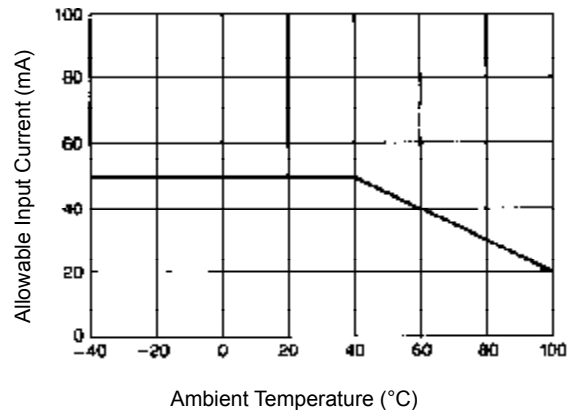


Figure 4. Input Current Derating

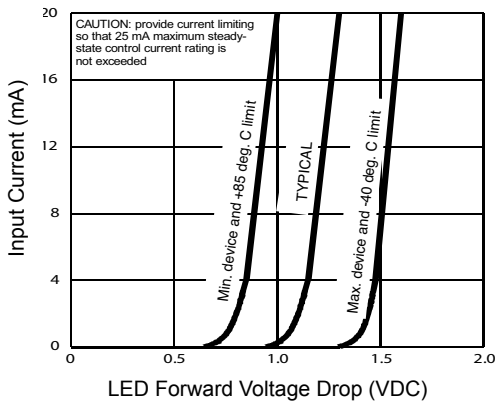


Figure 5. Input Characteristics

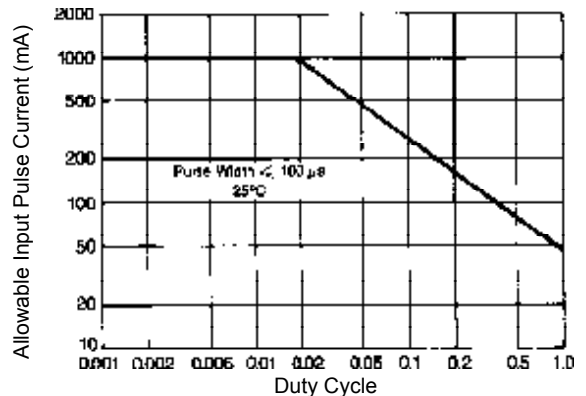


Figure 6. Input Pulse Capability

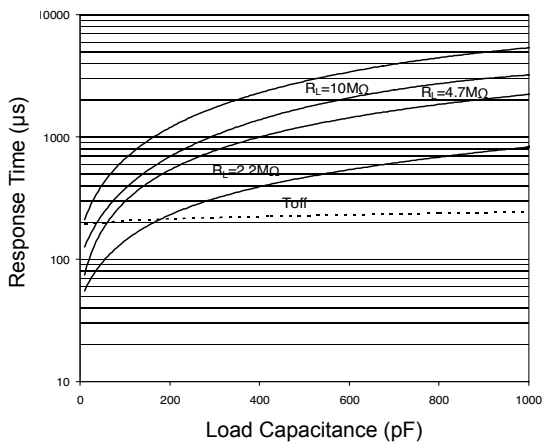
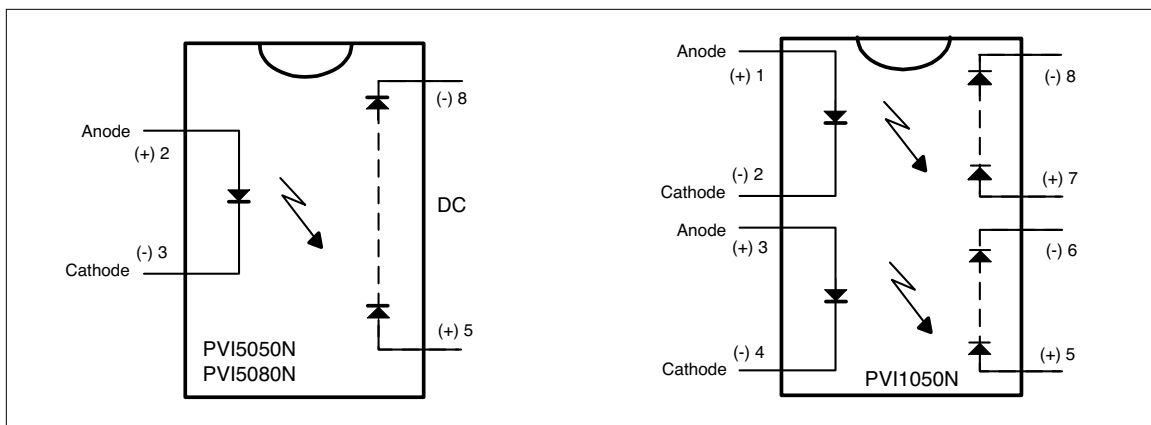


Figure 7. Typical Response Time

Wiring Diagram

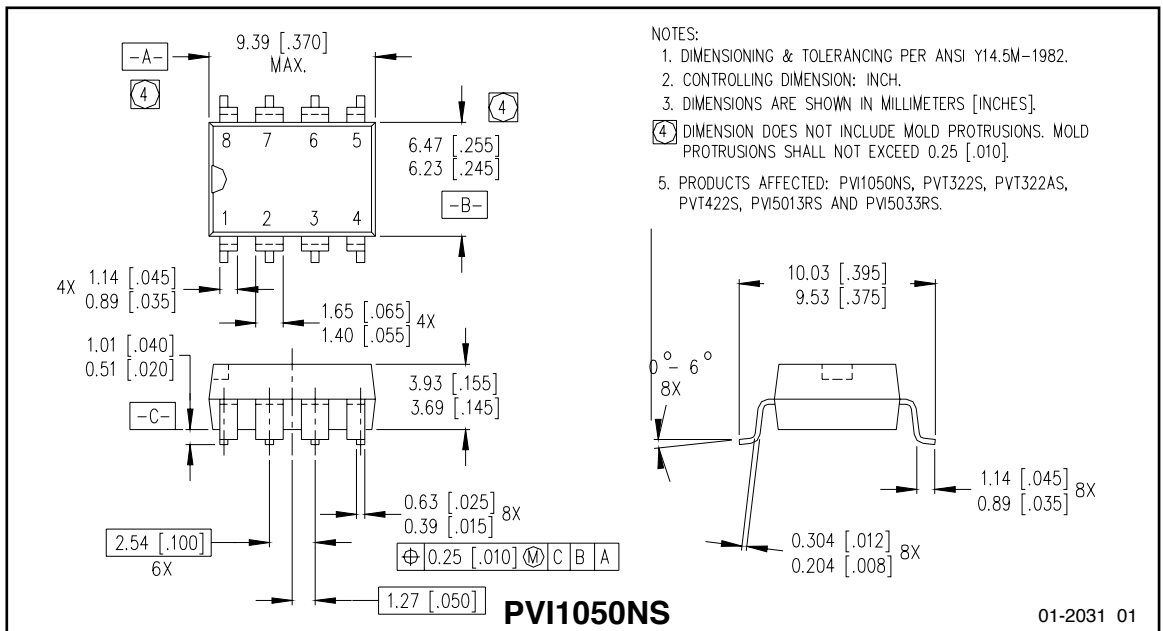
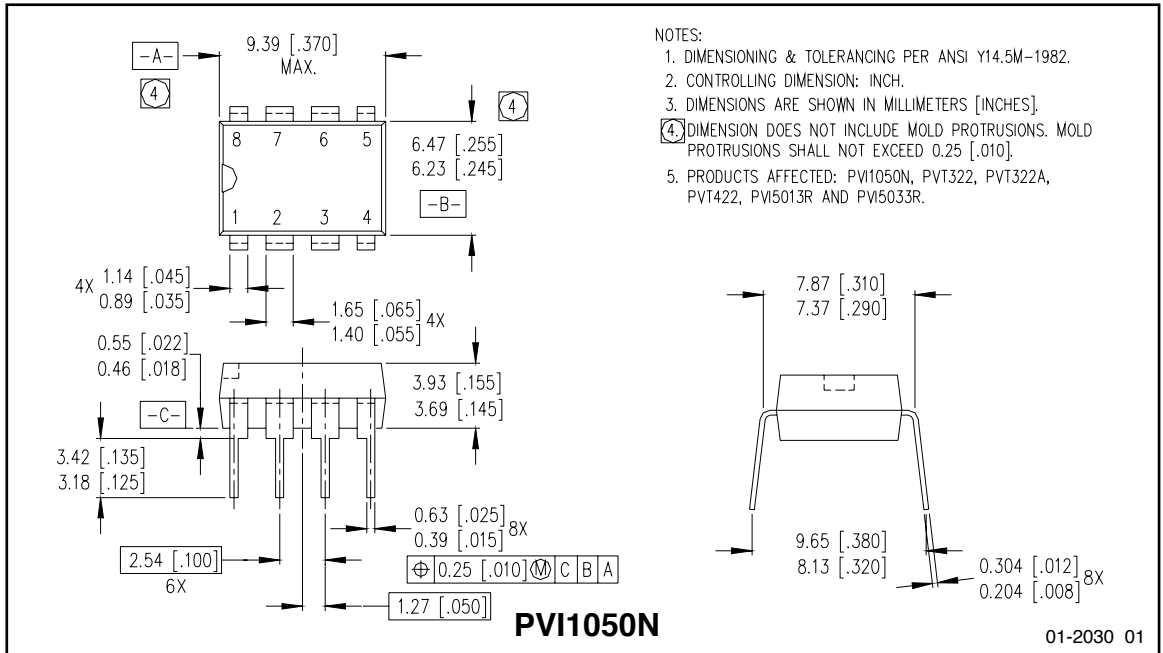


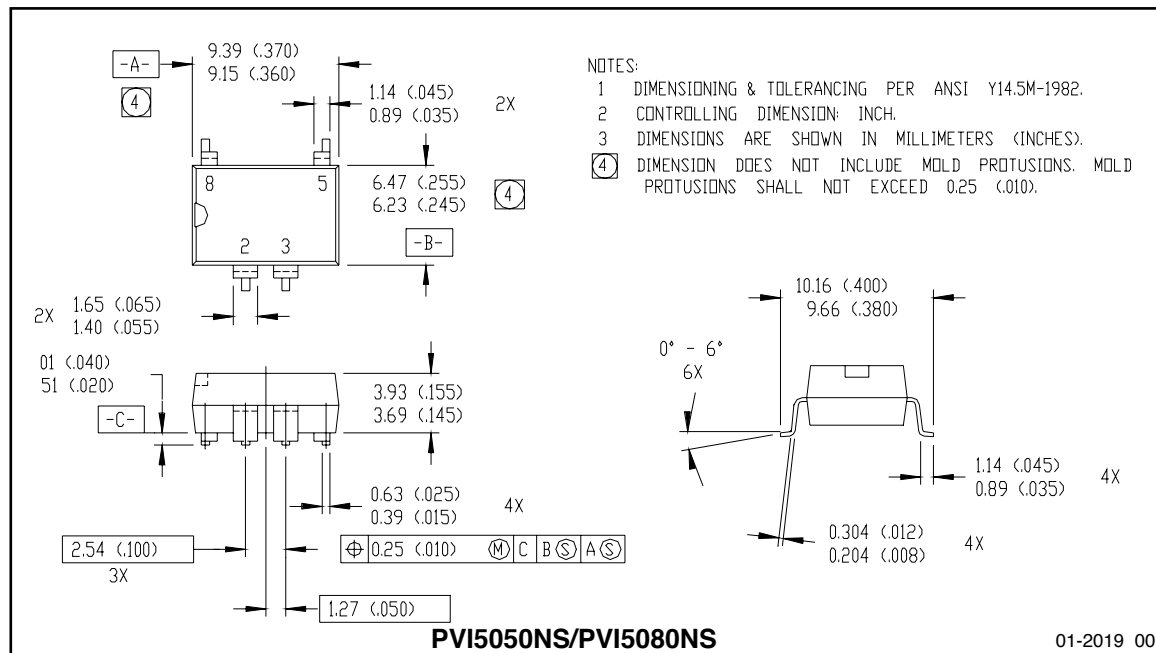
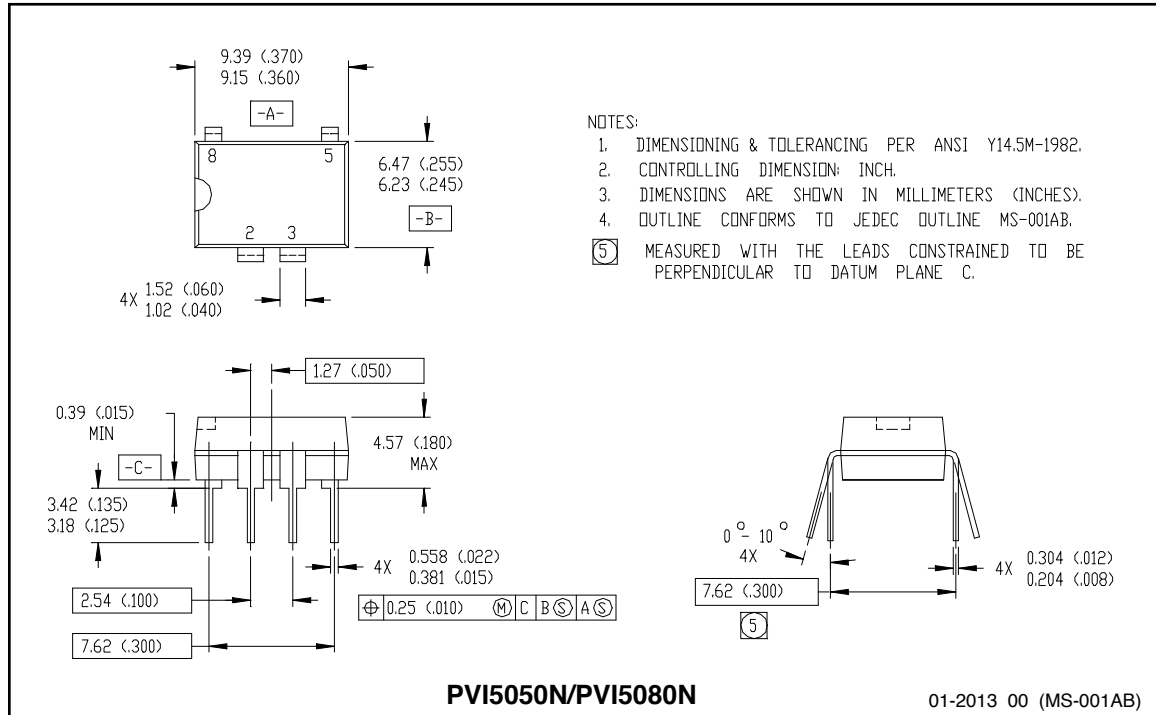
Application Note:

The outputs of the PVI1050N (pins 5-6 and 7-8) may be placed in series connection to produce a 10-volt output with a 5μA minimum short circuit current. Alternatively, the two output of the PVI1050 may be connected in parallel to produce a 5.0-volt output with a 10μA minimum short circuit current.

The two outputs of the PVI1050N may be applied separately with a maximum 1200VDC between the outputs. Input-to-output isolation to either output is 2500V (RMS).

Case Outlines





Data and specifications subject to change without notice. 2/2008