Electrical Specifications (-40°C ≤ T_A ≤ +85°C unless otherwise specified)

INPUT CHARACTERISTICS	**Limits**	**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	µA (DC)
Maximum Pulsed Input Current @ 25°C (see figure 6)	1.0	A (peak)

OUTPUT CHARACTERISTICS	**Limits**	**Units**
Maximum Forward Voltage @ 10µA	8.0 per channel	$V_{(DC)}$
Maximum Reverse Current @ -10V_{DC}	10	µA (DC)

COUPLED CHARACTERISTICS	**Limits PVI5050N**	**Limits PVI1050N**	**Units**
Minimum Open Circuit Voltage @ ILED = 10mA, 25°C, RL = >10MΩ (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	5.0/channel 10 series	µA (DC)
Maximum Capacitance (Input/Output)	1.0	2.0	pF
Maximum Ton Time @ ILED=10mA, CLOAD=10pF (See Figure7) RL > 20MΩ	300		µS
RL=10MΩ	160		µS
RL=4.7MΩ	90		µS
Maximum Toff Time @ ILED=10mA, CLOAD=10pF (See Figure7)	220		µS

GENERAL CHARACTERISTICS		**Limits PVI5050N**	**Limits PVI1050N**	**Units**
Minimum Dielectric Strength, Input-Output		4000	2500	V_{RMS}
Minimum Dielectric Strength, Output-to-Output		1200		V_{DC}
Minimum Insulation Resistance, Input-to-Output, @T_A=+25°C, 50%RH, 100V_{DC}		10^{12}		Ω
Maximum Pin Soldering Temperature (10 seconds maximum)		+260		°C
Ambient Temperature Range:	Operating	-40 to 85		
	Storage	-40 to 125		

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

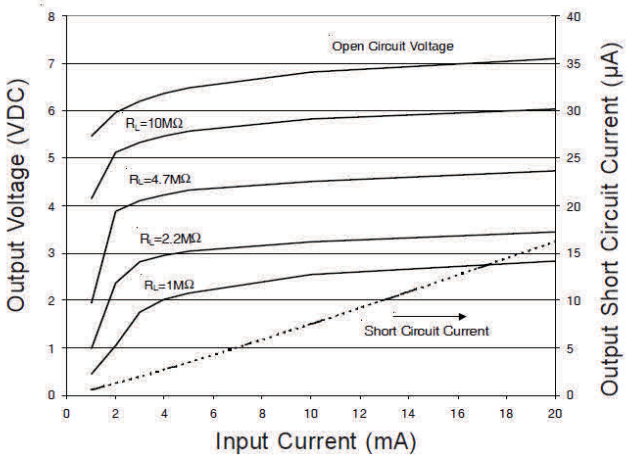


Figure 1. Typical Output Characteristics

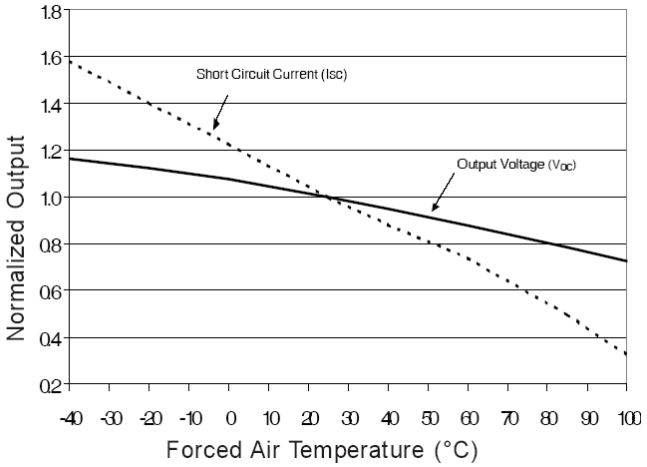


Figure 2. Typical Variation of Output

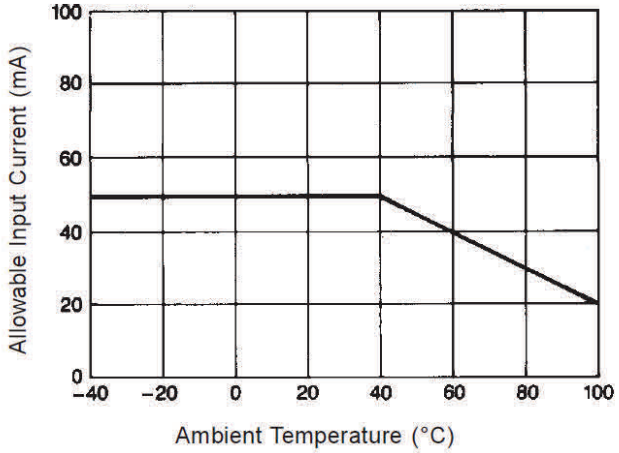


Figure 3. Input Current Derating

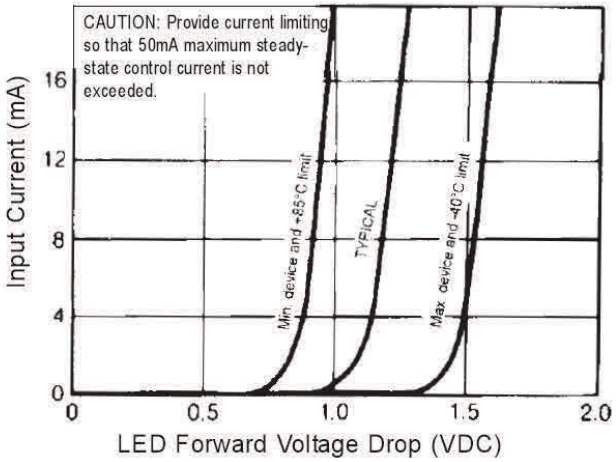


Figure 4. Input Characteristics

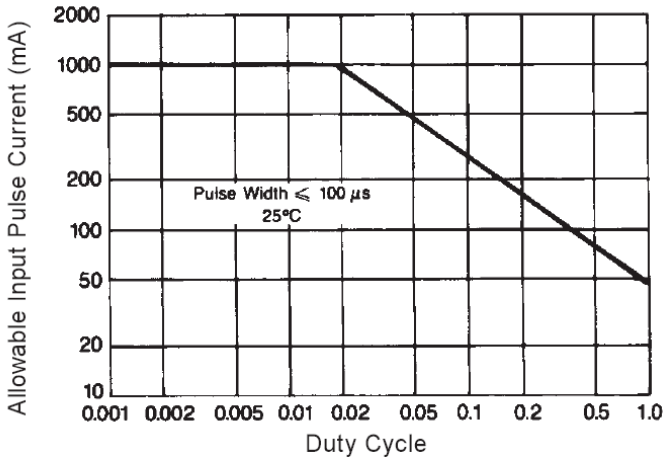


Figure 5. Input Pulse Capability

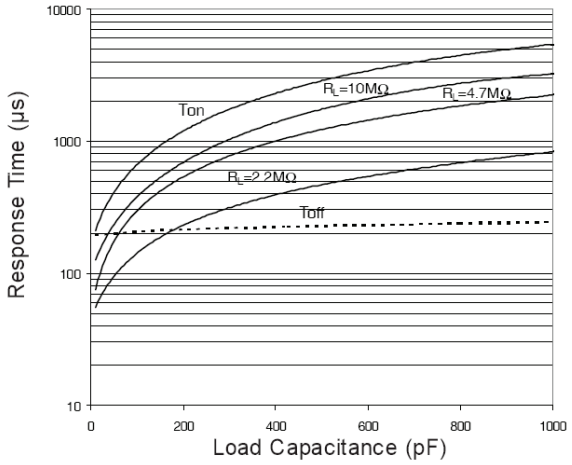
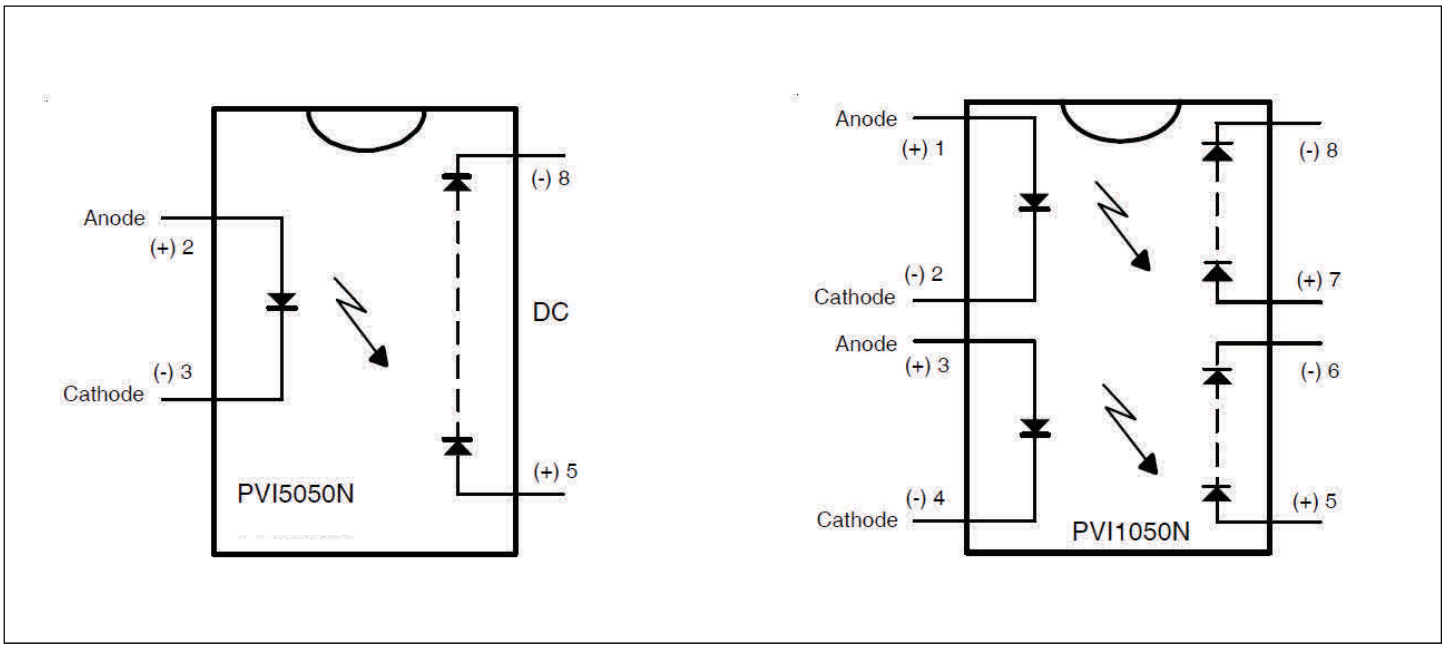


Figure 6. Typical Response Time

Wiring Diagram

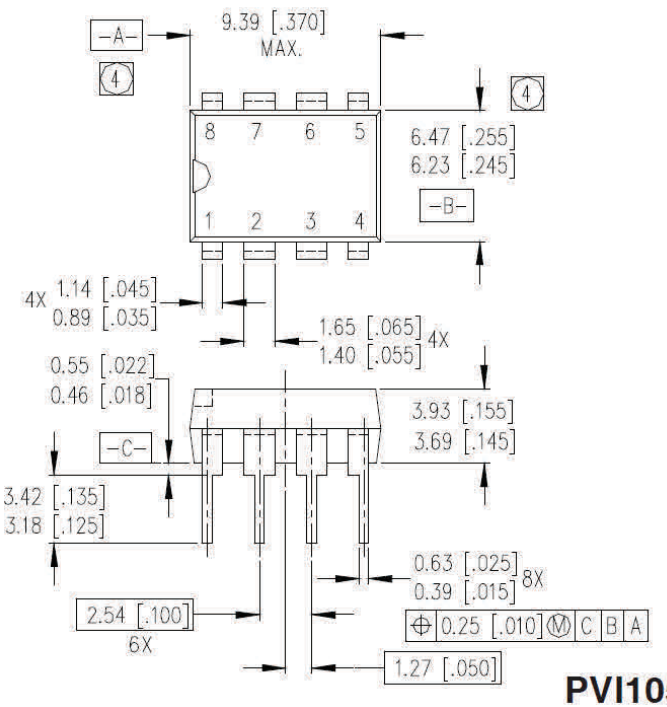


Application Note:

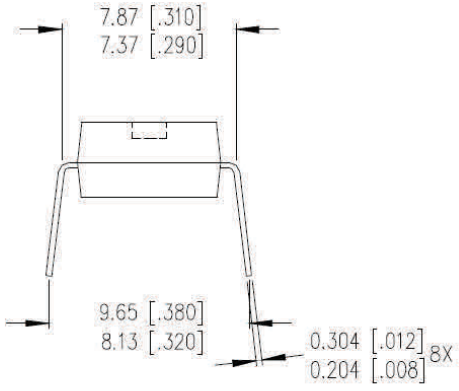
The outputs of the PVI1050N (pins 5-6 and 7-8) may be placed in series connection to produce a 10-volt output with a 5µA minimum short circuit current. Alternatively, the two ouptut of the PVI1050 may be connected in parallel to produce a 5.0-volt ouput with a 10µA minimum short circuit current.

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

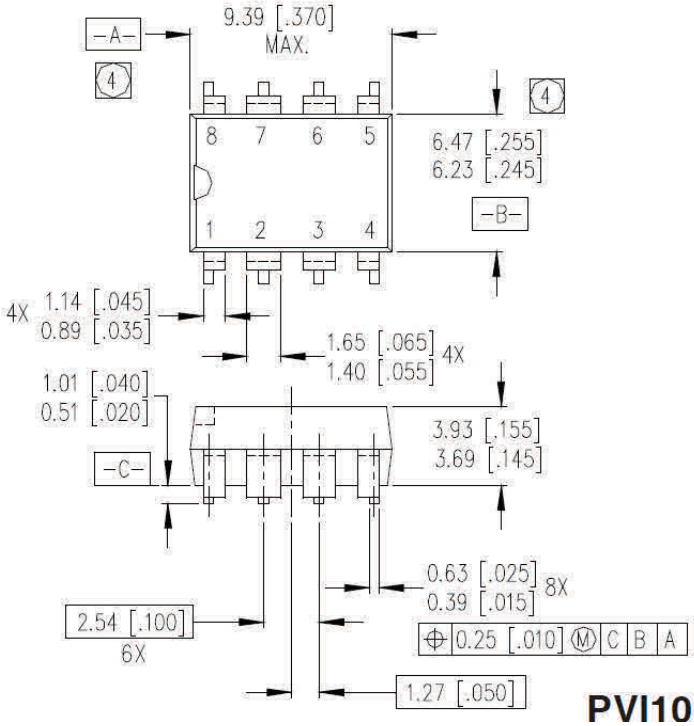


NOTES:
1. DIMENSIONING & TOLERANCING PER ANSI Y14.5M–1982.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
4. DIMENSION DOES NOT INCLUDE MOLD PROTRUSIONS. MOLD PROTRUSIONS SHALL NOT EXCEED 0.25 [.010].
5. PRODUCTS AFFECTED: PVI1050N, PVT322, PVT322A, PVT422, PVI5013R AND PVI5033R.

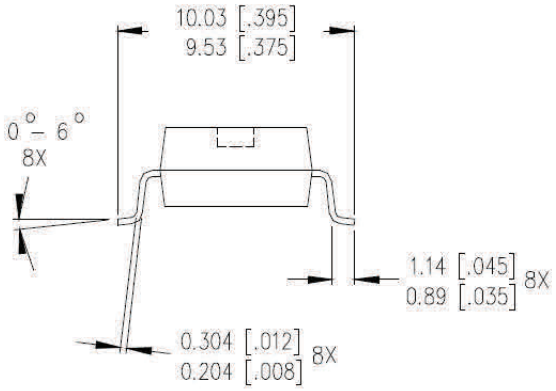


PVI1050N

01-2030 01



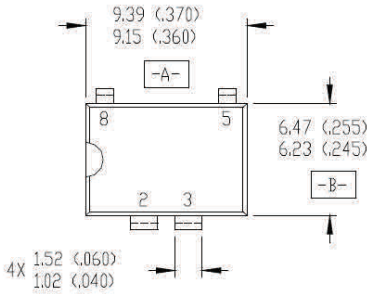
NOTES:
1. DIMENSIONING & TOLERANCING PER ANSI Y14.5M–1982.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSIONS ARE SHOWN IN MILLIMETERS [INCHES].
4. DIMENSION DOES NOT INCLUDE MOLD PROTRUSIONS. MOLD PROTRUSIONS SHALL NOT EXCEED 0.25 [.010].
5. PRODUCTS AFFECTED: PVI1050NS, PVT322S, PVT322AS, PVT422S, PVI5013RS AND PVI5033RS.



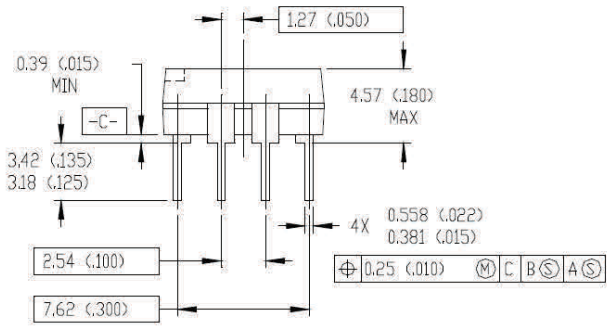
PVI1050NS

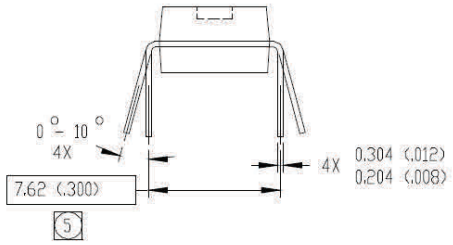
01-2031 01

Case Outlines



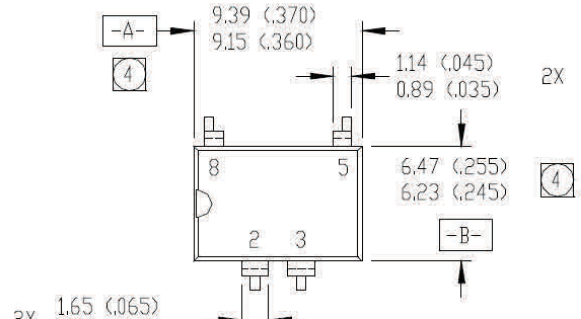
NOTES:
1. DIMENSIONING & TOLERANCING PER ANSI Y14.5M-1982.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
4. OUTLINE CONFORMS TO JEDEC OUTLINE MS-001AB.
5. MEASURED WITH THE LEADS CONSTRAINED TO BE PERPENDICULAR TO DATUM PLANE C.



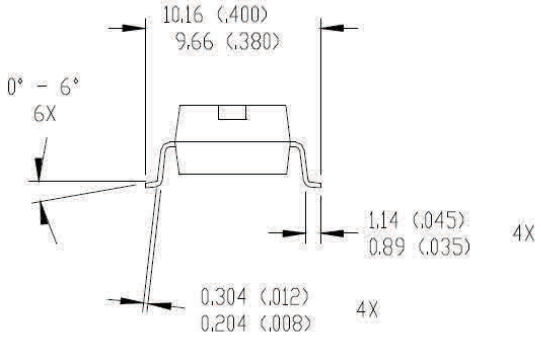


PVI5050N

01-2013 00 (MS-001AB)



NOTES:
1 DIMENSIONING & TOLERANCING PER ANSI Y14.5M-1982.
2 CONTROLLING DIMENSION: INCH.
3 DIMENSIONS ARE SHOWN IN MILLIMETERS (INCHES).
4 DIMENSION DOES NOT INCLUDE MOLD PROTUSIONS. MOLD PROTUSIONS SHALL NOT EXCEED 0.25 (.010).



PVI5050NS

01-2019 00

Qualifiction Information

Qualification Level	Industrial (per JEDEC JESD47F† guidelines)	
Moisture Sensitivity Level	PVI1050NPbF	N/A
	PVI5050NPbF	
	PVI1050NSPbF	MSL4 (per JEDEC J-STD-020E & JEDEC J-STD-033C) †
	PVI5050NSPbF	
	PVI1050NS-TPbF	
RoHS Compliant	Yes	

† Applicable version of JEDEC standard at the time of product release.

Edition 2016-04-19
Published by
Infineon Technologies AG
81726 Munich, Germany

Do you have a question about this document?
Email: erratum@infineon.com

Document reference
ifx1

IMPORTANT NOTICE
The information given in this document shall in no event be regarded as a guarantee of conditions or **characteristics ("Beschaffenheitsgarantie") .**

With respect to any examples, hints or any typical values stated herein and/or any information regarding the application of the product, Infineon Technologies hereby disclaims any and all warranties and liabilities of any kind, including without limitation warranties of non-infringement of intellectual property rights of any third party.

In addition, any information given in this document **is subject to customer's compliance with its** obligations stated in this document and any applicable legal requirements, norms and standards concerning customer's products and any use of the product of Infineon Technologies in **customer's applications.**

The data contained in this document is exclusively intended for technically trained staff. It is the **responsibility of customer's technical departments** to evaluate the suitability of the product for the intended application and the completeness of the product information given in this document with respect to such application.

For further information on the product, technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies office (www.infineon.com).

Please note that this product is not qualified according to the AEC Q100 or AEC Q101 documents of the Automotive Electronics Council.

WARNINGS
Due to technical requirements products may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies office.

Except as otherwise explicitly approved by Infineon Technologies in a written document signed by authorized representatives of Infineon Technologies, **Infineon Technologies' products may** not be used in any applications where a failure of the product or any consequences of the use thereof can reasonably be expected to result in personal injury.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Infineon:

PVI1050NPBF PVI1050NS-TPBF PVI1050NSPBF