

Product brief

Infineon solid state relays

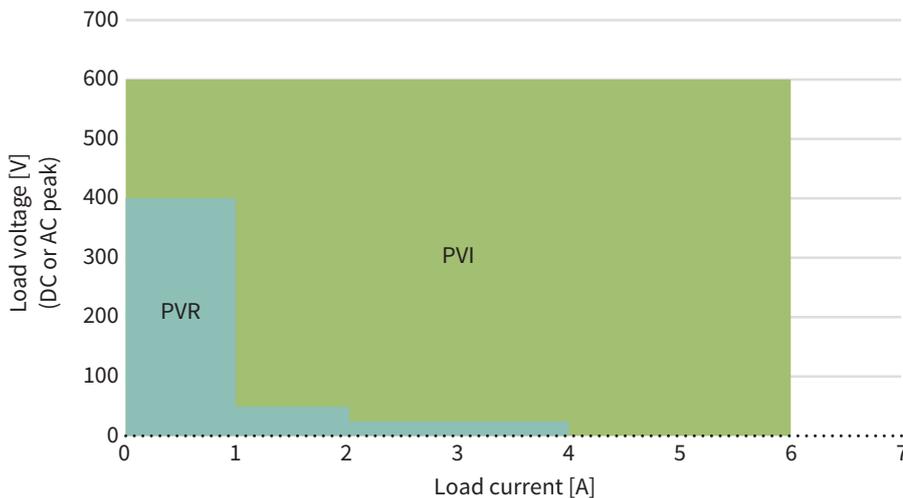
Protection you can rely on

Infineon Solid-State Relays (SSRs) are remotely controlled switches (on/off) with complete galvanic isolation from input to output. No power supply is needed on the output.

Using a relay allows for low-power control over a high-power signal while providing galvanic isolation between the logic part of the circuitry and high power signals. This isolation provides users with protection from electrical shocks and ensures sensitive electronics (e.g. microprocessors) don't get damaged by high-voltage spikes.

Main benefits of Infineon SSR technology

- > Optically isolated technology provides galvanic isolation for safety applications
- > Wide range of applications from industrial automation to test equipment
- > Established and reliable products with over 20 years of history



PVI: Photo-Voltaic Isolators

PVR: Photo-Voltaic Relays (PVI plus output switches)

Key advantages

- > UL certified
- > Silent operation
- > Bounce-free switching
- > Compact solution
- > Fast response time
- > High input sensitivity
- > High reliability
- > Long operational life
- > Insensitivity to stray EMF, shock and vibration
- > Stable contact resistance
- > Input to output isolation up to 4 kV

Applications

- > Electro-Mechanical Relay (EMR) and reed relay replacement
- > Battery management systems
- > UPS
- > Instrumentation systems
- > Automatic test equipment
- > Robotics
- > Industrial automation
- > Thermostats
- > Programmable logic controllers
- > Telecom

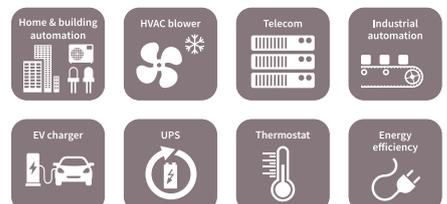
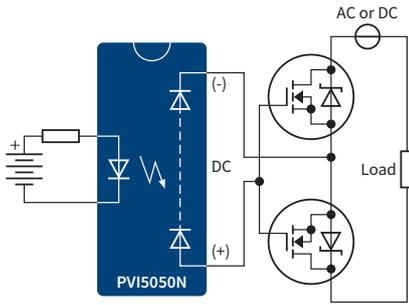


Photo-Voltaic Isolators (PVI)

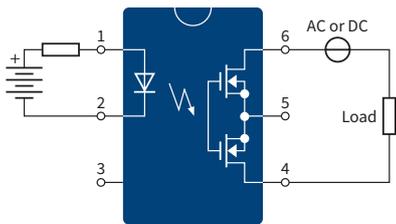


Our Photo-Voltaic Isolators (PVI) offer single- and dual-channel, optically isolated outputs that can be used for directly driving the gates of discrete power MOSFETs and/or IGBTs. This range of devices gives designers the flexibility to create custom solid-state relays capable of controlling loads in excess of 1000 V and 100 A.

The PVI series photo-voltaic isolators employ fast turn-off circuitry. No power supply is needed on the output side unlike conventional MOSFET or IGBT drivers. The dual channel PVI can drive independent discrete power MOSFETs or provide higher voltage drive for IGBTs.

Base PN	Package	Channels	Output voltage DC [V]	Short current [μ A]	Nominal control current (DC) [mA]	Isolation voltage [V_{RMS}]
PVI5033R	SMT-8 	Dual	5/10	10/5	5	3570
PVI5013R		Dual	3/6	2/1	5	3570
PVI1050N	DIP-8 	Dual	5/10	10/5	10	2500
PVI5080N		Single	5	8	10	4000
PVI5050N		Single	5	5	10	4000

Photo-Voltaic Relays (PVR)



Our UL certified Photo-Voltaic Relays (PVR) are remotely controlled switches (on/off) with complete galvanic isolation from input to output. They consist of PVIs integrated with MOSFETs or IGBTs in a single, compact package. Like our PVIs, no power supply is needed on the output.

We offer a wide variety of SSRs ranging from 20 V to 400 V with features such as high current capacity, current limiting and fast response time.

Base PN	Package	Load voltage [V]	Load current [A]	$R_{DS(ON)}$ (max.) [m Ω]	Isolation voltage [V_{RMS}]
High load current, 1 Form A					
PVX6012	DIP-14 	400	1 AC/DC	-	3750
PVG612A	DIP-6 	60	2 AC/4 DC	100/35	4000
PVG612		60	1 AC/2 DC	500/150	4000
PVN012A		20	4 AC/6 DC	50/15	4000
PVN012		20	2.5 AC/4.5 DC	100/40	4000

Base PN	Package	Load voltage [V]	Load current [A]	$R_{DS(ON)}$ (max.) [Ω]	Isolation voltage [V_{RMS}]
Current limiting, 1 Form A					
PVT412L	DIP-6 	400	0.12 AC/DC	35/9	4000
PVT312L		250	0.17 AC/DC	15/4.25	4000
Fast response time (< 200 μs typ. T_{on}), 1 Form A					
PVD1352N	DIP-8 	100	0.55 DC	1.5	4000
PVA2352N		200	0.15 AC/DC	24	4000
PVA3354N		300	0.15 AC/DC	24	4000

For a complete list of Infineon solid state relays, please visit: www.infineon.com/ssr

Published by
Infineon Technologies AG
81726 Munich, Germany

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