



OPTOCOUPLERS

10 MBd High-Speed



A New Family of 10 MBd High-Speed Optocouplers

FEATURES AND BENEFITS

- 10 MBd high-speed data rate in DIP-8 and SOIC-8 packages
- Ambient operating temperature from $-40\text{ }^{\circ}\text{C}$ to $+100\text{ }^{\circ}\text{C}$
- Reinforced insulation per IEC60950 2.10.5.1
- Utilizes open-drain NMOS transistor output for lower output leakage
- Certified by key international safety regulatory agencies such as UL, CUL, and VDE
- CMR ratings of $100\text{ V}/\mu\text{s}$, $5\text{ kV}/\mu\text{s}$, and $10\text{ kV}/\mu\text{s}$
- 400-mil and surface-mount options for DIP-8 packages available
- IEC60747-5-2 (VDE0884) available with option 1
- Pure tin leads
- Single and dual channels

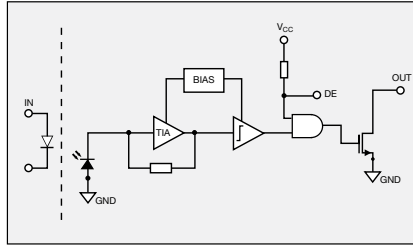
More information is available on our web site at www.vishay.com/ref/optocouplers
For DIP-8 datasheet, visit <http://www.vishay.com/docs/82584/82584.pdf>
For SOIC-8 datasheet, visit <http://www.vishay.com/docs/84607/84607.pdf>



APPLICATIONS

- Digital fieldbus isolation (Profibus, CANbus, etc.)
- Signal and pulse transformer replacement
- Digital control power supply
- Plasma display panel scan driver interface
- High-speed D/A and A/D converters
- PLC, ATE input/output isolation
- Computer peripheral interfaces

Vishay's 10 MBd optocouplers utilize a highly efficient input LED coupled to a photosensitive IC detector.



The detector features an integrated photodiode and amplifier that convert light signals from the LED into a voltage signal. A voltage comparator then digitizes the voltage signal. An open-drain

NMOS transistor drives the output of the detector. The internal shield provides an industry-high common-mode transient immunity.

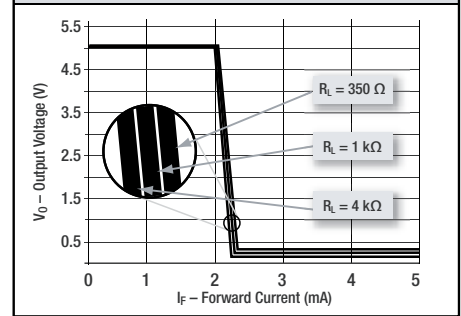
For the single-channel devices, an enable function on pin 7 allows the detector to be strobed. The use of a 0.1- μ F bypass capacitor connected between pins 5 and 8 is recommended.

All packages have multiple options that can be added from a variety of different lead forms to the IEC60747-5-2 (VDE0884) electrical test. For detailed ordering information, please visit the Vishay website at www.vishay.com/optocouplers and look for the options information document.

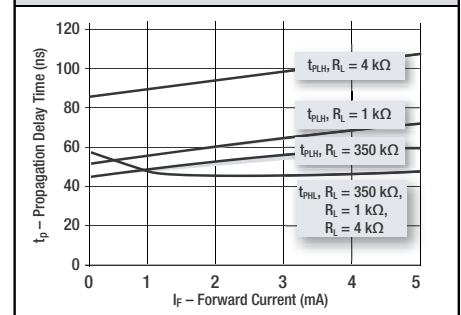
Part Number	Channel(s)	Package	t_{PLH} typ (ns)	t_{PHL} typ (ns)	$CMTI_{min}$ (V/ μ s)	Creepage (mm)
6N137	1	DIP-8	49	50	100	> 4
VO2601	1	DIP-8	49	50	5,000	> 4
VO2611	1	DIP-8	49	50	15,000	> 4
VO0600T	1	SOIC-8	49	50	100	> 4
VO0601T	1	SOIC-8	49	50	5,000	> 4
VO0611T	1	SOIC-8	49	50	15,000	> 4
VO2630	2	DIP-8	49	50	100	> 4
VO2631	2	DIP-8	49	50	5,000	> 4
VO4661	2	DIP-8	49	50	15,000	> 4
VO0630T	2	SOIC-8	49	50	100	> 4
VO0631T	2	SOIC-8	49	50	5,000	> 4
VO0661T	2	SOIC-8	49	50	15,000	> 4
SFH6755T	2	SOIC-8	49	50	100	> 5
SFH6756T	2	SOIC-8	49	50	5,000	> 5
SFH6757T	2	SOIC-8	49	50	15,000	> 5

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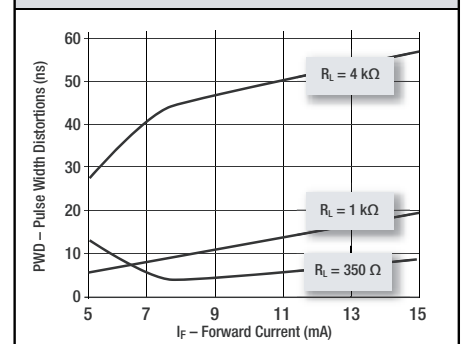
Output Voltage vs Forward Input Current



Propagation Delay Time vs Forward Current



Pulse Width Distortions vs Forward Current



Rise and Fall Time vs Forward Current

