



Author: Bob Gee
Tel: 1 408 567-8388
E-mail: robert.gee@vishay.com

New SFH67xxT Single- and Dual-Channel 10 MBd Optocouplers in SOIC-8 Package

The News:

Vishay Intertechnology, Inc. (NYSE: VSH) announces the release of a new series of single- and dual-channel 10 MBd optocouplers packaged in a reinforced-insulation SOIC-8 package. They are rated to operate in temperatures up to 100 °C, compared to most competitors at 85 °C.

Features:

- Fast 10 MBd data rate in a small SOIC-8 package
- Reinforced insulation per IEC60950 2.10.5.1
- Operating temperature from -40 °C to +100 °C
- Delivers improved output leakage current performance thanks to its NMOS open drain output structure
- Pure tin leads
- t_{rise} of 23 ns and t_{fall} of 7 ns
- CMR up to 10,000 V/ μ s
- Typical 2.9-ns pulse width distortion (PWD)
- Typical 50-ns propagation delay or $t_{\text{PHL}}/t_{\text{PLH}}$



The Key Applications:

- Communication bus lines, high-speed A/D and D/A converters, digital control power supplies, industrial controller I/O interfaces, and I2C bus isolation in base stations as well as consumer applications such as scan driver IC interfaces for plasma display panels

The Perspective:

Vishay's new series of single- and dual-channel 10 MBd optocouplers — the industry's first such devices rated for 100 °C operation — are packaged in a reinforced-insulation SOIC-8 construction that combines a highly efficient input LED with an integrated optical photodiode IC detector optimized for applications requiring high data rates.



The Key Benefits:

- Higher ambient operating temperature at 100 °C
- Reinforced insulation rating for industrial environments
- Less output leakage with an open drain NMOS transistor instead of an open collector Schottky clamped transistor
- Supplies a higher isolation replacement for signal isolation transformers
- Provides noise immunity and diminishes electromagnetic interference by reducing potential ground loops in electronic equipment
- Interfaces easily with most standard logic families and reduces the design cycle time by simplifying overall system noise design considerations
- Provides OEMs, EDMs, and EMS with a new 10 MBd optocoupler choice for high-speed applications

10 MBd High-Speed Optocouplers: Summary Table

Part	CMR (V/ μ s)	Configuration	Package Type
SFH6745T	100	Single-channel	SOIC-8
SFH6746T	5,000	Single-channel	SOIC-8
SFH6747T	10,000	Single-channel	SOIC-8
SFH6755T	100	Dual-channel	SOIC-8
SFH6756T	5,000	Dual-channel	SOIC-8
SFH6757T	10,000	Dual-channel	SOIC-8

Availability

Samples of the new 10 MBd optocouplers will be available in November 2004 and production quantities in December 2004, with lead times of six to eight weeks for larger orders. Pricing starts at \$1.05 each for quantities of 10,000.

Contact Information

The Americas

Dale Henderson
+1 408 567-8317
dale.henderson@vishay.com

Europe

Klaus Baumann
+49 7131-67-2212
klaus.baumann@vishay.com

Asia/Pacific

Werner Kreile
+65 6780-7812
werner.kreile@vishay.com