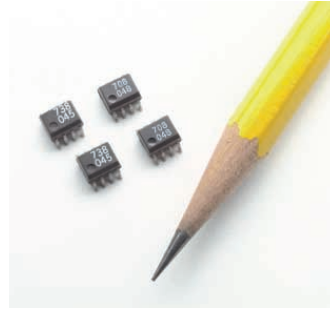


Product Positioning Brief



Background

The industry leader in high speed CMOS optocouplers, Avago Technologies provides a wide range of products for industrial and general purpose markets. With the introduction of the HCPL-0708 and HCPL-0738 for the high speed market, Avago has again assumed the leadership position.

About the product

The HCPL-0738 is industry's only dual channel 15 MBd CMOS optocoupler in SOIC-8 package which saves board space and helps in ease of design. The HCPL-0738 optocoupler utilizes the latest CMOS IC technology to achieve outstanding performance with very low power consumption. Basic building blocks of HCPL-0738 are high speed LEDs and CMOS detector ICs.

Avago also offers the same performance in the single channel version, HCPL-0708. Each detector incorporates an integrated photodiode, highspeed transimpedance amplifier and voltage comparator with output driver.

Features and Benefits

- Small size (SO8)
 - saves significant board space and cost
- +5 V CMOS compatibility
 - ease of design
- 15 MBd speed
 - high speed
- Low power consumption
 - save power
- High operating temperature range: -40°C to 100°C
 - wider range of operation
- 40 ns maximum propagation delay skew
- 20 ns typical propagation delay
- High CMR of 10 kV/μs (minimum)

Target Applications

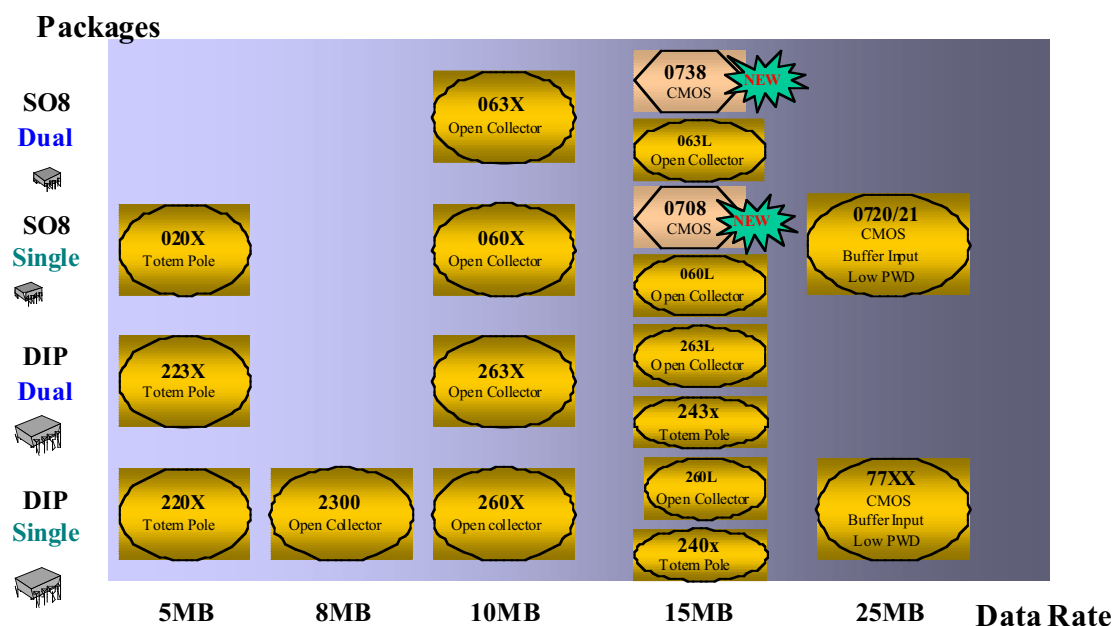
- PDP (Plasma Display Panel)
- Digital field bus isolation
 - DeviceNet, SDS, Profibus
- Multiplexed data transmission
- Computer peripheral interface
- Microprocessor system interface
- DC/DC converter

HCPL-0738 Product Specifications

BV _R for LED	5V
Operating Temperature Range	-40 to +100°C
T _{PHL}	60 ns max
T _{PLH}	60 ns max
PWD	25 ns max
CM _H	10 kV/μs min @ VCM = 1 kV
CM _L	10 kV/μs min @ VCM = 1 kV
Insulation	2500 Vrms 1 min

Product Positioning

The figure below shows how the HCPL-0738 is positioned in our existing line of high-speed optocouplers.



For product information and a complete list of distributors, please go to our web site: www.avagotech.com

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