

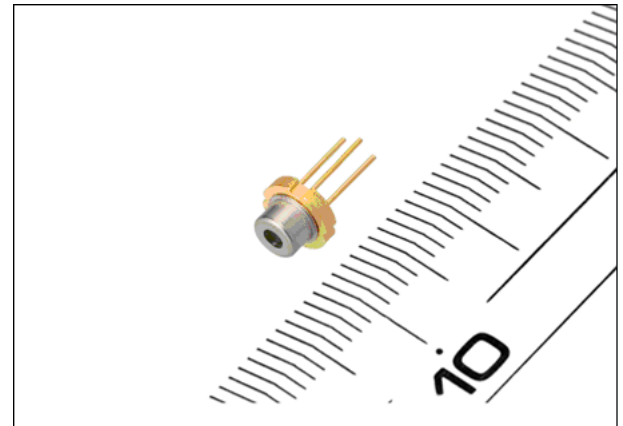
Product Announcement

FOR IMMEDIATE ANNOUNCEMENT

Sharp Now in Volume Production of High-Power Laser Diodes**210 mW Blue-Violet (406 nm) Laser Diodes are now available**

Sharp is now in volume production of the High-Power Blue-Violet Laser Diode GH04P21A2GE that achieves a power output of 210 mW, currently the industry's highest. This device, with its high power output and 406 nm wavelength, is key to high-speed 6X recording on next-generation dual-layer Blu-ray Discs (BD) and HD-DVDs.

The GH04P21A2GE makes full use of crystal growth technology developed for infrared, red, and blue-violet low-power laser diodes. In addition to a newly developed laser chip with a proprietary facet structure and a high optical power output of 210 mW that will contribute to high-speed recording for the next generation of DVDs, this device also features a long service life of 10000 hours, a level that leads the industry.



As terrestrial digital broadcasting spreads, worldwide demand for LCD TVs and HD recorders that support full-spec 1080p HDTV is expanding rapidly. Consumers are becoming more familiar with high-definition/resolution HD video, and the desire to be able to record high-quality pictures from HD sources and store them on removable disc media is also rapidly increasing.

This year, the market for recorders and PCs capable of recording on next-generation DVDs is expected to take off in earnest, and demand for blue laser diodes, the key device in this type of equipment, is projected to increase in tandem. Demand for faster recording times is expected, which will require speeding up the write process for individual layers on these discs.

Since beginning mass production of the industry's first infrared laser diode for use in CD players in 1982, Sharp has consistently been an industry leader in both technology and production.

The GH04P21A2GE targets optical storage applications, as well as Office Automation equipment, Audio/Visual equipment, Home appliances, Telecommunications equipment, Measuring equipment, and Factory Automation applications.

Major Features

Wavelength: 406 nm (TYP.)

Optical power output of 210 mW (MAX.), the industry's highest.

Long service life of 10000 hours, currently the industry's longest – realizes high reliability.

Lower-power version (20 mW MAX.) available as GH04020A2GE.

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GH04P21A2GE Specifications

PARAMETER		CONDITION	VALUE
DC optical power (CW MAX)		Continuous Wave (CW)	105 mW
Pulse optical power (MAX)		Pulse, 50% Duty Cycle	210 mW
Threshold DC optical current (TYP)		—	40 mA
Operating current (TYP)		$P_O = 105 \text{ mW (CW)}$	120 mA
Wavelength (TYP)			406 nm
Beam divergence (TYP)	Horizontal	$P_O = 105 \text{ mW (CW)}$	9°
	Vertical		19°
Operating temperature (CW and Pulse)		-10°C to +70°C	

GH04020A2GE Specifications

PARAMETER		CONDITION	VALUE
DC optical power (CW MAX)		Continuous Wave (CW)	20 mW
Threshold DC optical current (TYP)		—	25 mA
Operating current (TYP)		$P_O = 10 \text{ mW (CW)}$	35 mA
Wavelength (TYP)			406 nm
Beam divergence (TYP)	Horizontal	$P_O = 5 \text{ mW (CW)}$	9.5°
	Vertical		20°
Operating temperature		0°C to +70°C	

The above are only partial specifications. Full specifications for these parts are available on the Sharp Microelectronics of the Americas website (www.SHARPsma.com). These parts are RoHS* compliant.

Please contact Abdul Aslami at aslamia@sharpsec.com with any questions you may have regarding these new additions to the Sharp product line.

About Sharp Microelectronics of the Americas

Sharp Microelectronics of the Americas (SMA) drives innovative LCD, optoelectronics, memory, imager, and RF/IR components to market. The world's leading manufacturers of consumer and business technologies look to SMA for the products, expertise, and worldwide support they need to make their visions a reality.

SMA, in Camas, Washington, is the microelectronics sales and marketing division of Sharp Electronics Corporation, a wholly owned subsidiary of Sharp Corporation.

For more information, visit us at www.SHARPsma.com.

* The Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive (2002/95/EC). This directive took effect July 1, 2006.