Joy of innovation with Japan Quality

Nuvoton Technology Corporation Japan is a global semiconductor supplier with more than 60 years of experience in design and manufacturing since its establishment in 1952. We combine our technologies to make the best solutions or proposals for a safe and happy society that is connected and close to everyone.

Quality, Environment, Occupational safety and health and Security

Quality	**ISO 9001:2015**	**Occupational Safety / health**	**ISO 45001:2018**
Environment	**ISO 14001:2015**	**Security**	**ISO/IEC 27001:2013 ISO/IEC 15408 ISO/SAE 21434:2021**

Nuvoton Business Network

Nuvoton Technology Corporation Japan

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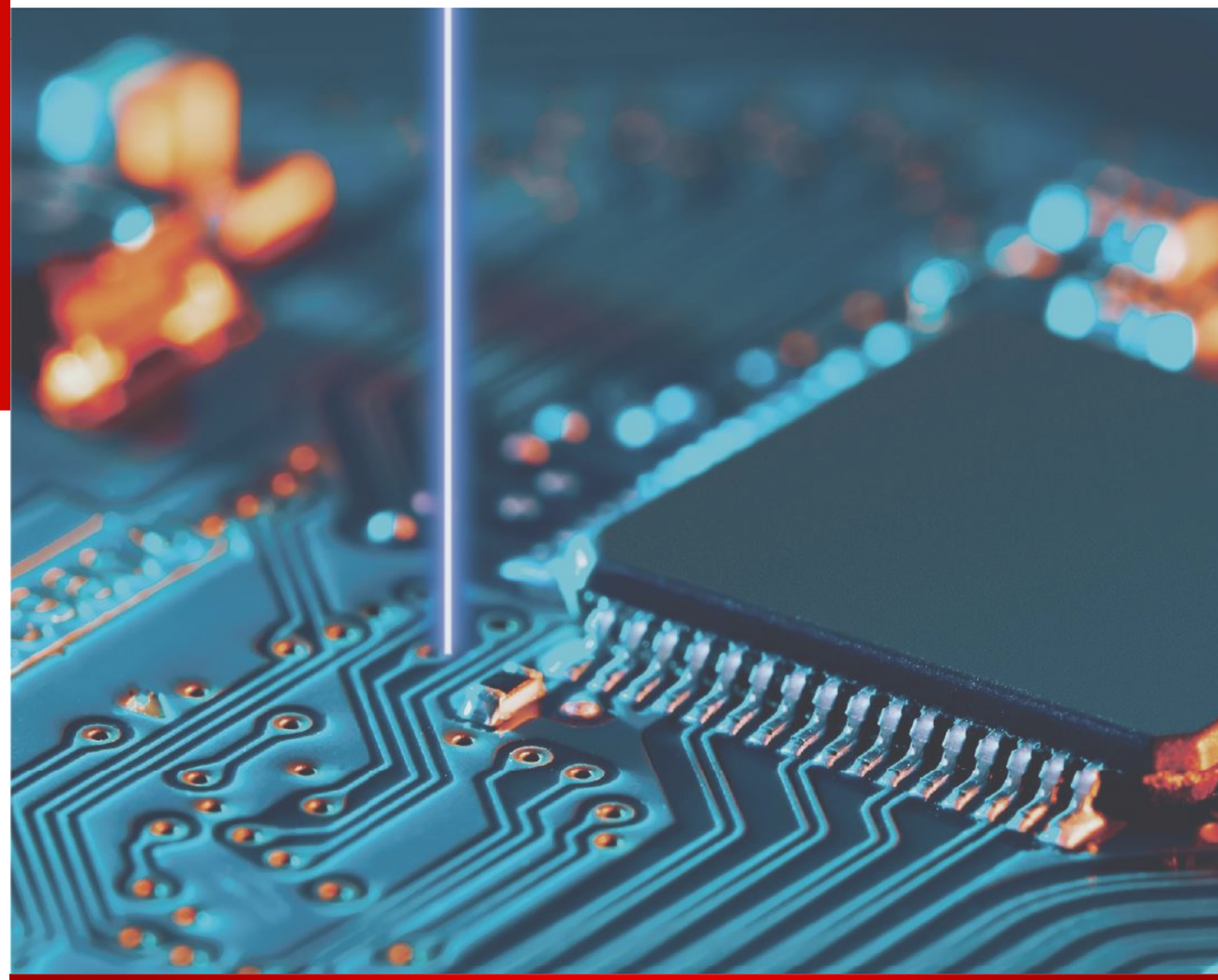
https://nuvoton.co.jp/



Product and Application Lineup

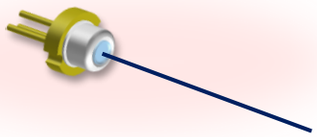
High Performance LASER Diodes

Compact, Energy Saving and High Reliability Solution

Nuvoton Technology Corporation Japan

Semiconductor LASER Features

Semiconductor LASER, also called LASER Diodes, generate LASER light at low operating voltages and currents because they convert electricity directly into light. The high-power conversion efficiency, excellent power saving, long life, and high output power even in a compact size are the major features of Semiconductor LASER. Also, depending on the semiconductor material, a wide variety of LASER wavelengths from ultraviolet to infrared can be extracted. Range of applications is expanding since continuous wave (CW) and pulse wave can be selected.



Semiconductor LASER Features

- Compact
- Energy Saving
- High Reliability

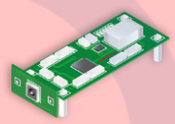
Applications of Semiconductor LASER of Nuvoton

Nuvoton LASER Diodes developed based on own design, process, device, and epitaxial technology are used in various applications.

3D Printer

Biomedical

Communication



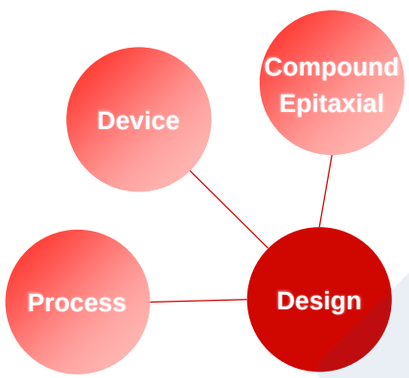
PCB Exposure

Material Processing

Consumer

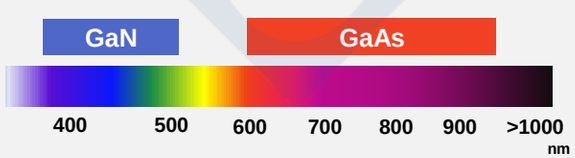
About Semiconductor LASER of Nuvoton

Competence Technology of Nuvoton



Nuvoton Technology Corporation Japan has been providing innovative products to the world for over 40 years as a leading company of Semiconductor LASER. We have produced and shipped cumulative over 3 billion LASER light sources for optical discs.
The wavelength range of light emitted from Semiconductor LASER is determined by the materials that make up the light-emitting element. We have been developing both Gallium Arsenide (GaAs)-based and Gallium Nitride (GaN)-based materials for many years and have a great deal of experience and expertise in Semiconductor LASER technology that emits light from the UV to the IR. Using these technologies, we contribute to various applications.

Relationship between emission wavelength and GaN and GaAs materials



Product lineup

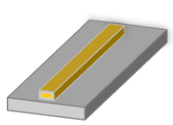
Nuvoton's Semiconductor LASER Lineup

Transverse mode	Part name	Wavelength	Output Power (CW)	Package Format
Multi	KLC310	375 nm	0.5 W	Φ9.0mm TO-CAN
Multi	KLC432	402 nm	3.0 W	Φ9.0mm TO-CAN
Multi	KLC433	402 nm	1.2 W*	Φ5.6mm TO-CAN
Multi	KLC420FS	420 nm	1.7 W*	Φ5.6mm TO-CAN
Multi	KLC420FL	420 nm	5.0 W*	Φ9.0mm TO-CAN
Multi	KLCB02	445 nm	5.0 W	CoS
Single	KLC980	976 nm	1.0 W	Bare Chip

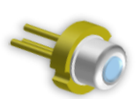
*Under development or consideration

Forms of Semiconductor LASER Offered

Bare Chip
Semiconductor LASER chip form



CoS
(Chip on Submount)
A form in which a LASER chip is mounted on a submount substrate



TO-CAN
Form in which CoS is mounted and sealed in a TO-CAN standard metal package

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