

HUL7203

Hologram Unit

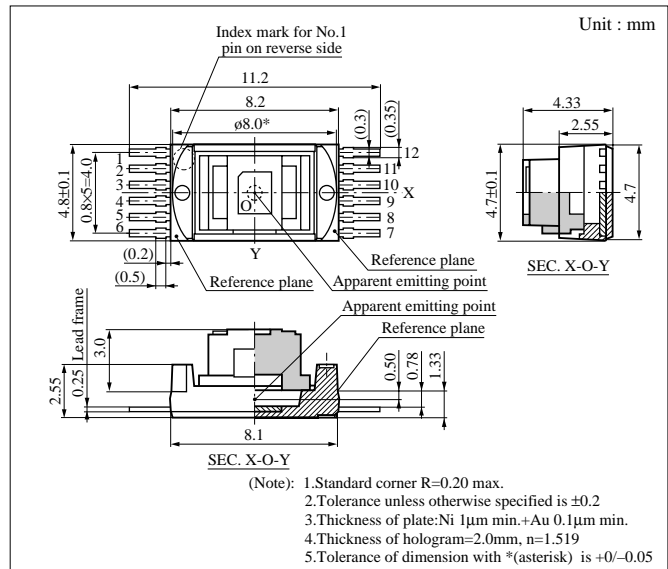
For optical information processing

■ Features

- Smaller package size achieved through micro-mirror integration
(4.8 × 8.2 × 4.3 mm)
- Fast response ($f_C = 35$ MHz)
- Focus error signal detection : SSD method
- Tracking error signal detection
: 3 beam method
- Low-power semiconductor laser included

■ Applications

- CD-ROM drives
(supports 20- to 24-time speed CD-ROM drives)



■ Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Laser beam output*1	P_O	0.3	mW
Reverse voltage	Laser	$V_{R(LD)}$	2 V
	Monitor	$V_{R(mon)}$	6 V
Supply voltage	V_R	6	V
Operating ambient temperature	T_{opr}	-10 to +60	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

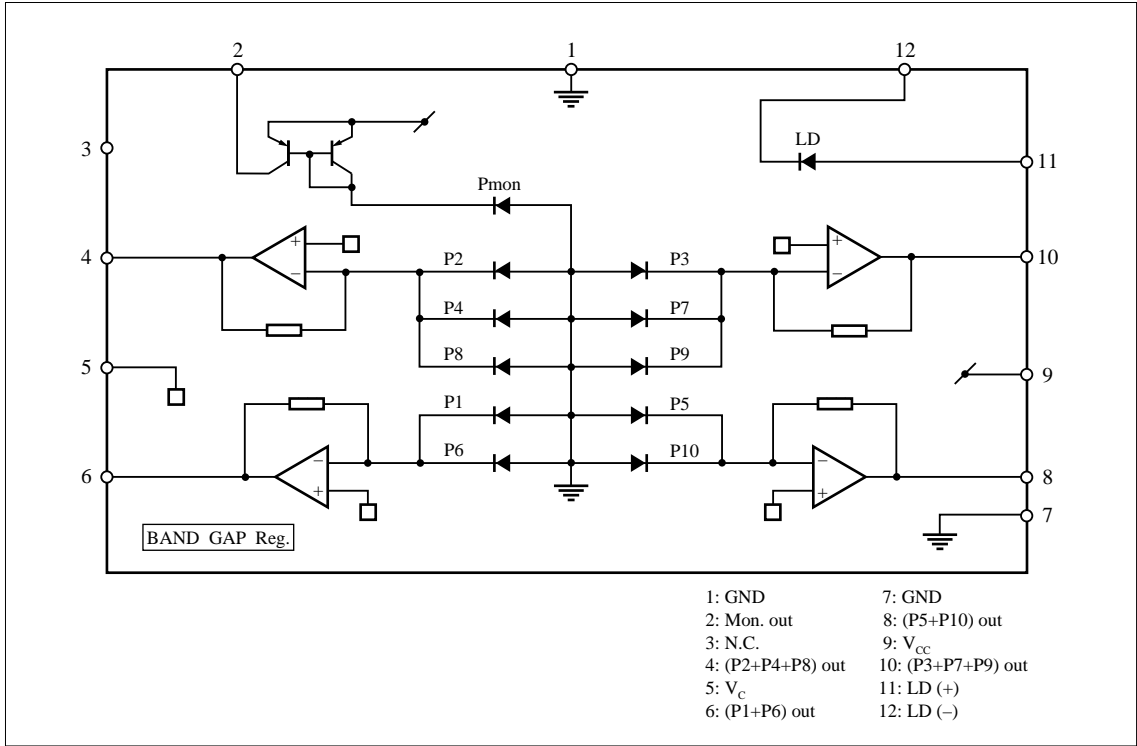
*1 Light emitting output through objective lens

■ Electro-Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Laser beam output*1	P_O	CW		0.18	0.25	mW
Operating current	I_{OP}	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$	25	35	40	mA
Operating voltage	V_{OP}	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$		1.9	2.4	V
Oscillating wavelength	λ_L	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$	775	795	815	nm
Focus error signal amplitude	V_{FE}	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$	340	480	620	mV
Tracking error signal amplitude	V_{TE}	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$	190	310	430	mV
Focus error signal pull-in range	D_{FE}	CW $V_{RF} = 570\text{mV}$, $V_{CC} = 5\text{V}$	9	12	16	μm
Frequency characteristics (-3 dB)	f_C		30	35		MHz

*1 Light emitting output through objective lens

■ Block Diagram of Circuit Functions



I — L, I — V

