

# HUH7288

For DVD Multi Drives [CD write/read]

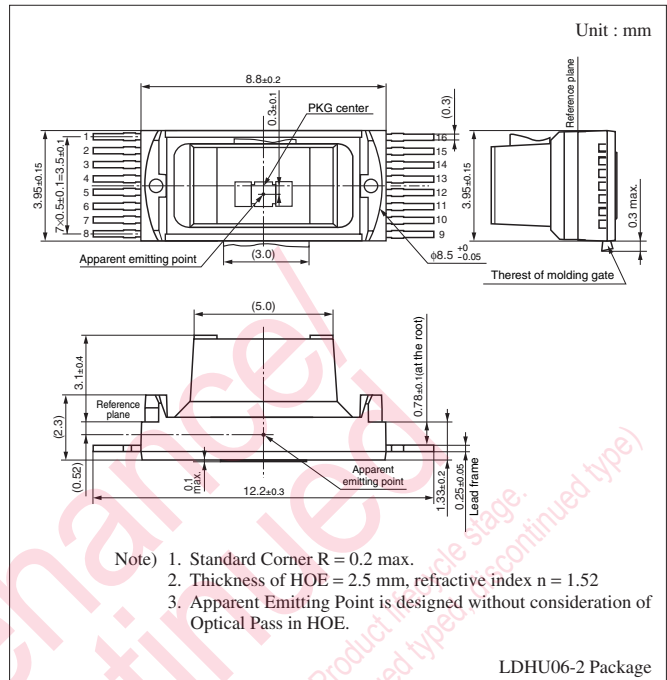
For optical information processing  
(24 to 40 × writing/48 × reading is CD-R)

## ■ Features

- It is developed real with window structured high power laser diode, and realized high speed recording
- 24 to 40 × writing/48 × reading of CD-R/RW possible
- Thin (4.0 mm) package realizes thin and simple pick-up
- 0.7 V clip circuit and a ROPC terminal are adopted
- Sleep function is carried

## ■ Applications

- For DVD multi drivers

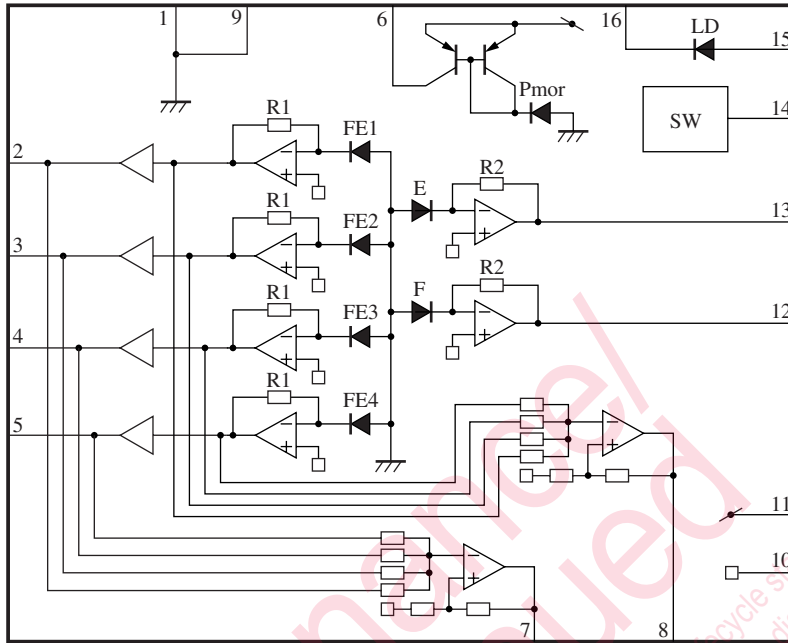


## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Radiant power	$P_O$	90(CW), 210(Pulse)	mW
Reverse voltage	$V_{R(LD)}$	1.5	V
Supply voltage	$V_{CC}$	6	V
Reference voltage	$V_{ref}$	+1.5 to +2.3	V
Operating ambient temperature	$T_{opr}$	-10 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +85	$^\circ\text{C}$

■ Block Diagram

R1 = 4 kΩ  
R2 = 140 kΩ



■ Pin Descriptions

Pin No.	Description	Pin No.	Description
1	GND	9	GND
2	FE1 Signal out	10	V <sub>ref</sub>
3	FE2 Signal out	11	V <sub>CC</sub>
4	FE3 Signal out	12	F Signal out
5	FE4 Signal out	13	E Signal out
6	N.C.	14	SW
7	RF Signal out	15	LD(+)
8	R <sub>opc</sub> Signal out	16	LD(-)

■ Electro-Optical Characteristics

• Unit characteristic specifications T<sub>C</sub> = 25°C ± 3°C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Threshold current	I <sub>th</sub>	CW	10	26	35	mA
Operating current	I <sub>OP</sub>	CW, P <sub>O</sub> = 80 mW	85	115	150	mA
Operating voltage	V <sub>OP</sub>		1.6	1.9	2.5	V
Oscillation wavelength	λ		779	785	791	nm
Focus error signal amplitude	V <sub>FE</sub>	P <sub>Lo</sub> = 1.25 mW, V <sub>CC</sub> = 5 V, V <sub>ref</sub> = 1.65 V	265	445	625	mV
Focus error signal balance	B <sub>FE</sub>		-20	0	+20	%
Main beam signal amount	V <sub>TE</sub>		460	770	1080	mV
Main beam signal balance	B <sub>TE</sub>		-30	0	+30	%
Main sub signal ratio	MSR		1	1.8	5	—
RF signal amount	V <sub>RF</sub>		460	770	1 080	mV

# Caution for Safety

 **DANGER**

## ■ This product contains Gallium Arsenide (GaAs).

GaAs powder and vapor are hazardous to human health if inhaled or ingested. Do not burn, destroy, cut, cleave off, or chemically dissolve the product. Follow related laws and ordinances for disposal. The product should be excluded from general industrial waste or household garbage.

## ■ Do not touch or look into the laser beam directly.

The laser beam may cause injury to the eye or skin, or loss of eyesight.

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