

GH07P26A2C

(Under development)

■ Features

- (1) Maximum optical power output : 120mW (CW)
- (2) High power (pulse MAX. 260mW), MAX. ×48 speed writing
- (3) Suitable for MAX. ×48 (CAV) speed writing Combo, HiHi Combo drives which optical system has lower efficiency than CD-R / RW drivers.
- (4) High coupling efficiency.
The ellipticity ($\theta_L/\theta_{//}$) is close to 1.
- (5) Wavelength : TYP. 784nm
- (6) $\phi 5.6$ mm package

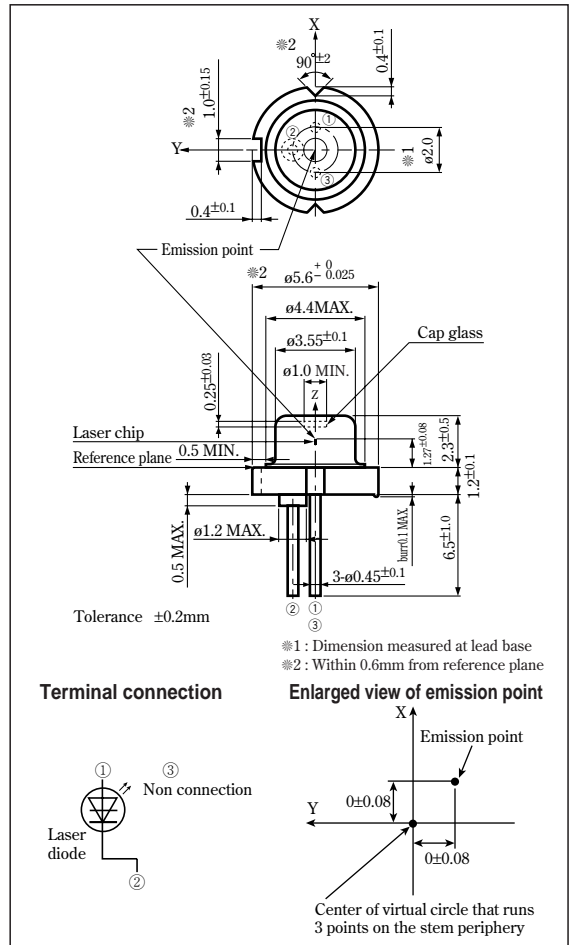
■ Applications

- (1) CD-R drives
- (2) CD-RW drives
- (3) Combo drives

High Power Laser Diode for MAX. X48 Speed CD-R Drive, Combo Drive (784nm-pulse260mW)

■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

(T_C=25°C *1)

Parameter	Symbol	Rating	Unit
*3 Optical power output	P _O	120	mW
*2 Optical power output (pulse)	P _P	260	mW
Reverse voltage	Laser V _{rl}	2	V
*1 Operating temperature	*3 CW T _{opc(c)}	-10 to +65	°C
	*2 Pulse T _{opp(c)}	-10 to +75	°C
Storage temperature	T _{stg}	-40 to +85	°C
*4 Soldering temperature	T _{slid}	300	°C

- *1 Case temperature
 *2 Pulse width : 0.1μs, Duty : 50%
 *3 CW (Continuous Wave) drive
 *4 At the position of 1.6mm or more from the lead base (Within 3s)

■ Electro-optical Characteristics^{※1}

(T_c=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Threshold current	I _{th}	-	-	30	40	mA	
Operating current	I _{op}	P _o =100mW	-	141	167	mA	
Operating voltage	V _{op}		-	2.1	2.5	V	
Wavelength	λ _p		780	784	787	nm	
Half intensity angle	^{※2※3} Parallel		θ//	7.8	8.7	9.8	°
	^{※2※3} Perpendicular		θ⊥	14.5	16	17.5	°
^{※4} Ripple	R _i		-20	-	+20	%	
Misalignment angle	^{※3} Parallel		Δθ//	-1.5	-	+1.5	°
	^{※3} Perpendicular		Δθ⊥	-2.5	-	+2.5	°
Differential efficiency	η _d		$\frac{70\text{mW}}{I(100\text{mW})-I(30\text{mW})}$	0.8	1.0	1.3	mW/mA
Interference pattern intensity	α		P _o =100mW	-	-	1	-
^{※5} Kink	K-LI	P1=52mW, P2=156mW, P3=260mW	-	-	10	%	
Polarization ratio	P ₁	P _o =3mW, NA=0.13	20	-	-	-	

^{※1} Initial value, CW (Continuous Wave) drive

^{※2} Angle at 50% peak intensity (full-width at half-maximum)

^{※3} Parallel to the junction plane (X-Z plane)

Perpendicular to the junction plane (Y-Z plane)

^{※4} R=ΔP/P ΔP : the maximum deviation of the far field pattern from its approximate curve P : the peak of the approximate curve

^{※5} Pulse drive (Pulse width : 0.1μs, Duty : 50%)

• Please refer to the chapter "Handling Precautions"

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