GH06510B2A

■ Features

(1) Maximum optical power output: 10mW CW

(2) Wavelength: TYP. 654nm

(3) Low current drive type (Iop: 40mA)

(4) \$5.6mm package

Applications

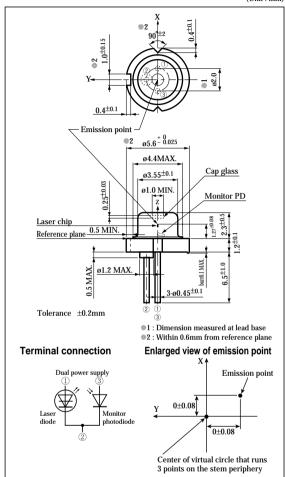
(1) DVD-ROM drives

(2) DVD video drives

Red Laser Diode for DVD-ROM Drive(654nm-10mW)

Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

(Tc=25°C *1)

_	7 110 0 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	(10 20 0)			
	Parameter			Rating	Unit
	Optical power output			10	mW
	Reverse voltage	Laser	V_{rl}	2	V
		Monitor photodiode	$V_{\rm rd}$	30	V
*1	Operating temperat	Top(c)	-10 to +70	°C	
	Storage temperature			-40 to +85	°C
*2	Soldering temperat	Tsld	260	°C	

^{*1} Case temperature

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^{*2} At the position of 1.6mm or more from the lead base (5s)

Laser Diodes GH06510B2A

■ Electro-optical Characteristics*1

 $(Tc=25^{\circ}C)$

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Threshold current		Ith	_	-	30	45	mA
Operating current		Iop		-	40	55	mA
Operating voltage		Vop		-	2.2	2.5	V
Wavelength		λ_p		640	654	660	nm
II-16:	*2*3 Parallel	θ//	Po=7mW	7	8.5	10	۰
Half intensity angle	*2*3 Perpendicular	θ⊥		24	29	33	۰
*4 Ripple		Rı		-	-	±20	%
Mindiana	*3 Parallel	Δθ//		-	-	±2	۰
Misalignment angle	*3 Perpendicular	Δθ⊥		-	-	±3	۰
Differential efficiency	,	ηd	5mW I(7mW)-I(2mW)	0.38	0.7	1.05	mW/mA
Interference pattern intensity		α	Po=7mW	-	-	1	-

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

■ Electrical Characteristics of Photodiode

 $(Tc=25^{\circ}C)$

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Output current	Im	$Po=7mW$, $V_{rd}=5V$	0.08	0.2	0.4	mA
Dark current	ID	$V_{\rm rd} = 5V$	-	-	150	nA
Terminal capacitance	Ct	V _{rd} =5V, f=1MHz	-	3.5	-	pF

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

^{*3} Parallel to junction plane (X-Z plane), Perpendicular to the junction plane (Y-Z plane)

^{**} $R = \Delta P/P \Delta P$: the maximum deviation of the far field pattern from its approximate curve P: the peak of the approximate curve

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