TYPE NAME

ML60124R, ML601J24

DESCRIPTION

ML6XX24 is a high power AlGaAs semiconductor laser which provides a stable, single transverse mode oscillation with emission wavelength of 785nm and standard pulse output power of 95 mW.

ML6XX24 is produced by a MOCVD crystal growth method which is excellent in mass production and characteristics uniformity. This is a high-performance, highly reliable, and low-operation-current semiconductor laser.

FEATURES

- High pulse output (95mW)
- Small astigmatic distance
- Low operation current

APPLICATION

8X CD-R/RW Drive

ABSOLUTE MAXIMUM RATINGS (Note 1)

Based on Mitsubishi's measurement standards

Symbol	Parameter	Conditions	Ratings	Unit
Po	Light output power	CW	70	mW
		Pulse(Note 2)	100	
VRL	Reverse voltage (laser diode)	-	2	V
VRD(Note 3)	Reverse voltage (Photodiode)	-	30	V
IFD(Note 3)	Forward current (Photodiode)	-	10	mA
Tc	Case temperature	-	-10 ~ +60	°C
Tstg	Storage temperature	-	-40 ~ +100	°C

Note1: The maximum rating means the limitation over which the laser should not be operated even instant time, and this does not mean the guarantee of its lifetime.As for the reliabiliti,please refer to the reliability report issued by Quality Assurance Section, HF & Optical Semiconductor Division, Mitsubishi Electric Co..

Note2: TARGET SPEC /Condition Duty less than 50%,pulse width less than 0.1μs

Note3: Applicable to ML60124R

ELECTRICAL/OPTICAL CHARACTERISTICS (Tc=25°C)

Based on Mitsubishi's measurement standards

Symbol	Parameter	Test conditions	Min.	Typ.	Max	Unit
Ith	Threshold current	CW	-	40	50	mA
Iop	Operation current	CW,Po=60mW	-	95	140	mA
η	Slope efficiency	CW,Po=60mW	-	1.0	-	mW/mA
Vop	Operating voltage	CW,Po=60mW	-	1.8	2.2	V
λp	Peak wavelength	CW,Po=60mW	775	785	795	nm
θ//	Beam divergence angle (parallel)	CW,Po=60mW	7	9	11	°
θ⊥	Beam divergence angle (perpendicular)	CW,Po=60mW	17	20	24	°
Im(Note 4)	Monitoring output current (Photodiode)	CW,Po=60mW,VRD=1V RL=10Ω (Note 5)	-	0.5	-	mA
ID(Note 4)	Dark current (Photodiode)	VRD=10V	-	-	0.5	μA
Ct(Note 4)	Capacitance (Photodiode)	VRD=5V	-	7	-	pF

Note 4: Applicable to ML60124R

Note 5: RL=the load resistance of photodiode

NSPF

OUTLINE DRAWINGS











