

MITSUBISHI ELECTRIC CORPORATION

SPECIFICATION	PREPARED BY: <i>K.Kuramoto</i>	R E V				
	CHECKED BY: <i>M.Miyashita</i>					
	APPROVED BY: <i>K.Mori</i>					
	DATE: <i>Mar.31, 2015</i>					

1. Type	ML562G84
2. Application	Light Source
3. Structure	Red Laser Diode
4. Outline	G880367

5. Absolute maximum ratings					
No.	PARAMETER	SYMBOL	CONDITION	RATINGS	UNIT
(1)	Operation Current	I _{op}	Pulse(Duty Cycle ≤ 40%)	Fig.1	
(2)	Reverse Voltage	V _{RL}	-	2	V
(3)	Anode-Case Voltage (*1)	V _{ac}	-	-30~30	V
(4)	Operating Case Temperature	T _c	-	0~+55	°C
(5)	Storage Temperature	T _{stg}	-	-40~+85	°C
(6)	Soldering Temperature	T _{sol}	Lead Length ≥ 2mm	320°C, 2sec	

<Note> 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 lifetime, refer to the reliability report from Mitsubishi Semiconductor Quality Assurance Section.

*1: Voltage between Φ9 package and anode lead pin

6. Characteristics table

No.	PARAMETER	SYMBOL	CONDITION (T _c =25°C(*2) unless otherwise specified)	LIMITS			UNIT
				MIN.	TYP.	MAX.	
(1)	Output Power	P _{op}	Pulse(*3), I _{op} =2.8A, T _c =25°C	-	2.5	-	
			Pulse(*3), I _{op} =3.6A, T _c =45°C	-	2.5	-	
			Pulse(*3), I _{op} =3.6A, T _c =55°C	-	1.9	-	
(2)	Threshold Current	I _{th}	Pulse(*3), T _c =25°C	-	780	-	mA
(3)	Operating Voltage	V _{op}	Pulse(*3), I _{op} =2.8A, T _c =25°C	-	2.4	-	V
(4)	Slope Efficiency	η	Pulse(*3), T _c =25°C	-	1.25	-	W/A
(5)	Peak Wavelength	λ _p	Pulse(*3), I _{op} =2.8A, T _c =25°C	636	638	644	nm
(6)	Beam Divergence (Full Width at 1/e ²)	θ _{//}	Pulse(*3), I _{op} =2.8A, T _c =25°C	-	8	-	°
		θ _⊥	Pulse(*3), I _{op} =2.8A, T _c =25°C	-	70	-	°

*2: Actual measurement temperature is adjusted in order to match an active layer temperature to that of stable condition at T_c=25°C.

*3: Pulse condition 120Hz, Duty=30%

These specifications are based on MITSUBISHI's method.

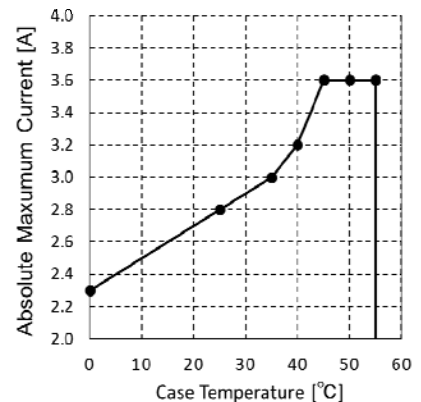


Fig.1 Absolute maximum ratings of operating current