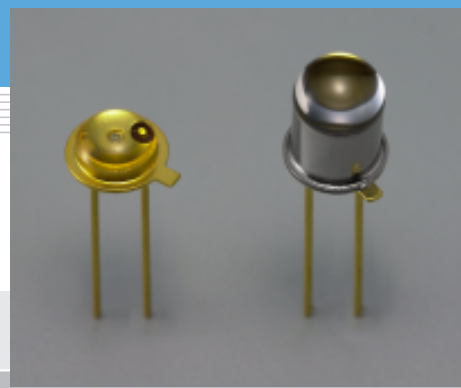


Infrared LED

L2690 series

High power GaAlAs infrared LED



Features

- High radiant output power
- High reliability

Applications

- Optical switch
- Automatic control system

■ Absolute maximum ratings (Ta=25 °C)

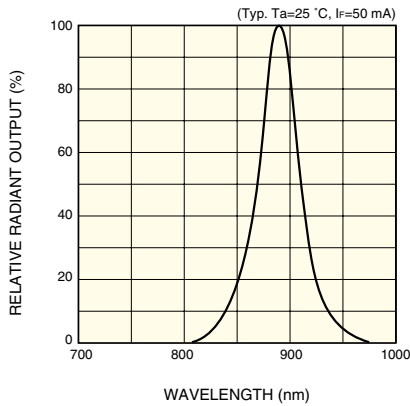
Parameter	Symbol	Condition	Value	Unit
Forward current	IF		100	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width: 10 μs Duty ratio: 1 %	1.5	A
Operating temperature	Topr		-30 to 85	°C
Storage temperature	Tstg		-40 to 100 *	°C

* Guaranteed to resist temperature cycle test of up to 5 cycles.

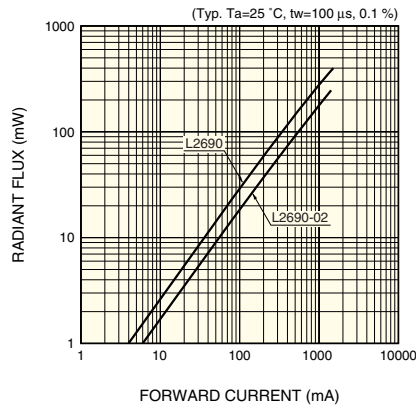
■ Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	L2690			L2690-02			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λ_p	IF=50 mA	870	890	920	870	890	920	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	50	-	-	50	-	nm
Forward voltage	VF	IF=50 mA	-	1.45	1.60	-	1.45	1.60	V
Pulse forward voltage	VFP	IF=1.5 A	-	3.3	4.0	-	3.3	4.0	V
Reverse current	IR	VR=5 V	-	-	5	-	-	5	μA
Radiant flux	ϕ_e	IF=50 mA	12.0	14.0	-	7.0	9.0	-	mW
Radiant illuminance	PE	IF=50 mA	-	0.6	-	-	4.4	-	mW/cm ²
Rise time	tr	IF=50 mA, 10 to 90 %	-	0.45	0.7	-	0.45	0.7	μs
Fall time	tf	IF=50 mA, 90 to 10 %	-	0.45	0.7	-	0.45	0.7	μs

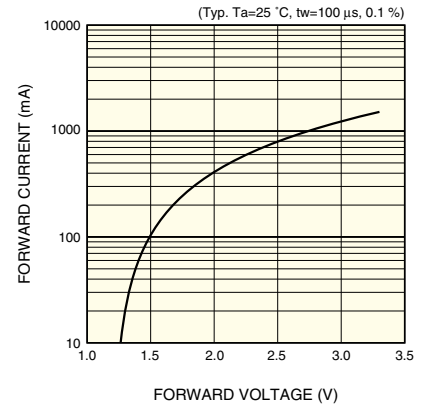
Emission spectrum



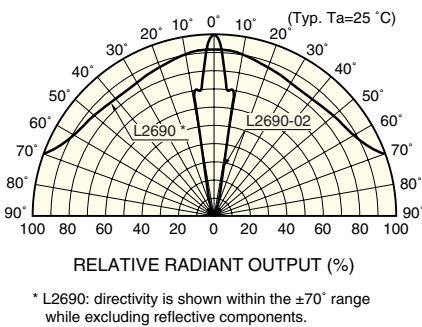
Radiant flux vs. forward current



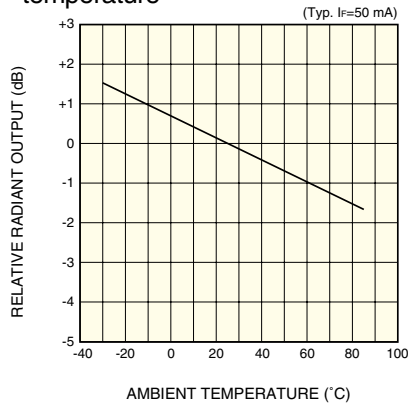
Forward current vs. forward voltage



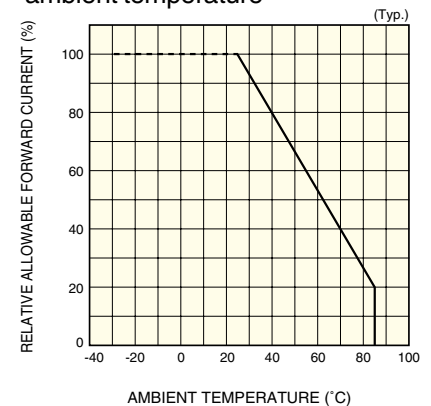
Directivity



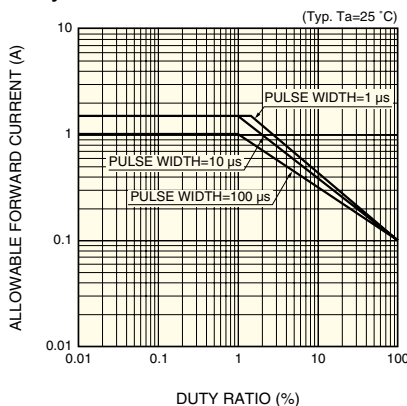
Radiant output vs. ambient temperature



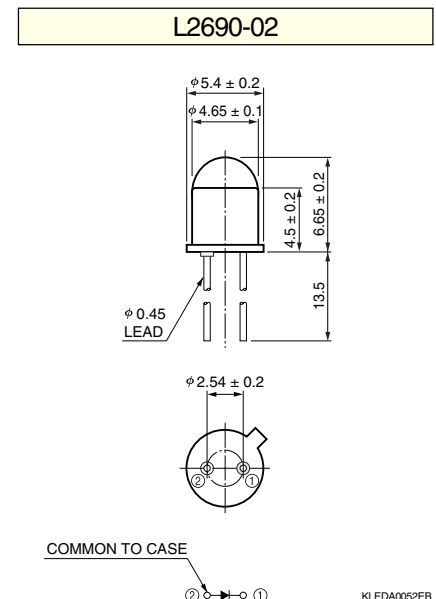
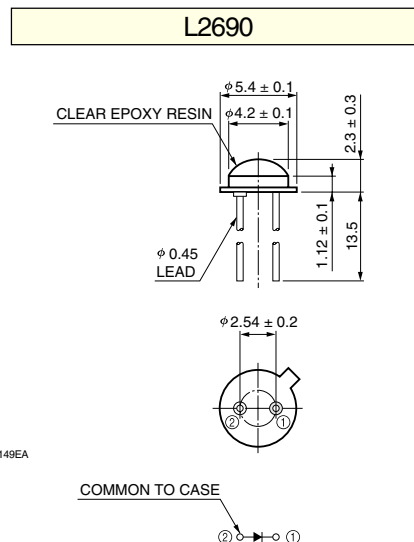
Allowable forward current vs. ambient temperature



Allowable forward current vs. duty ratio



Dimensional outlines (unit: mm)



HAMAMATSU

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