



L4100

## Resin-potted metal package LED

### Features

- High reliability
- High output power

### Applications

- Optical switches
- Auto control equipment

### Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Condition	Value	Unit
Forward current	IF		70	mA
Reverse voltage	VR		3	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1%	0.8	A
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100*	°C

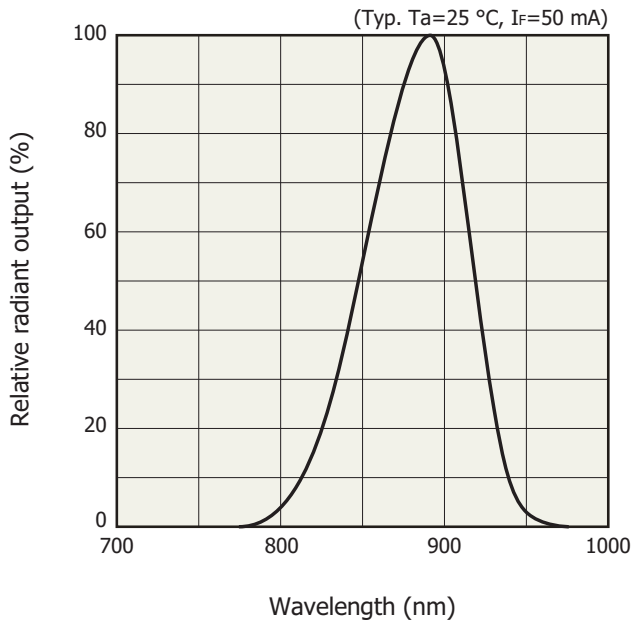
\* Guaranteed to resist temperature cycle test of up to 5 cycles

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

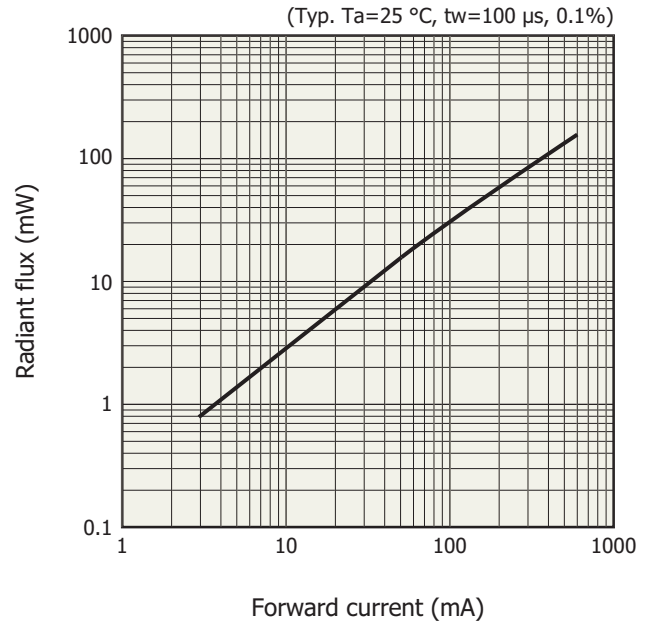
### Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	$\lambda_p$	IF=50 mA	870	890	920	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	50	-	nm
Forward voltage	VF	IF=50 mA	-	1.45	1.60	V
Pulse forward voltage	VFP	IF=0.8 A	-	3	3.7	V
Reverse current	IR	VR=5 V	-	-	5	μA
Radiant flux	$\phi_e$	IF=50 mA	12	14	-	mW
Radiant illuminance	PE	IF=50 mA	-	1.3	-	mW/cm <sup>2</sup>
Rise time	tr	IF=50 mA	-	0.45	0.7	μs
Fall time	tf	IF=50 mA	-	0.45	0.7	μs

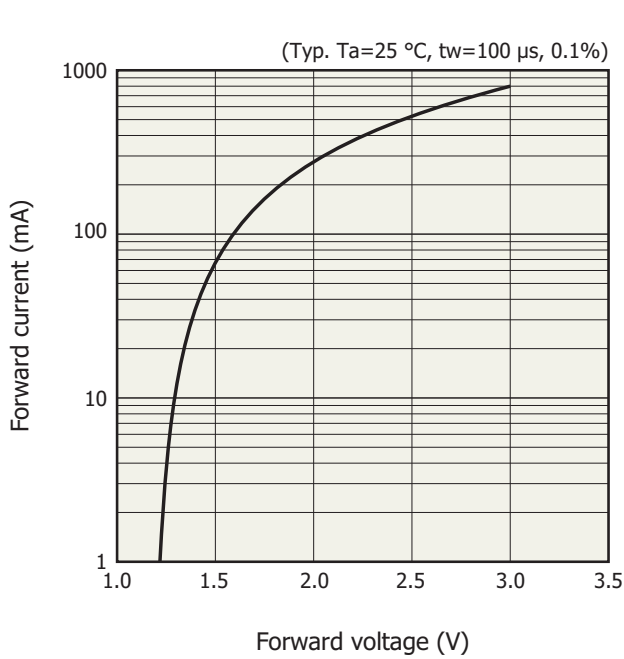
**Emission spectrum**



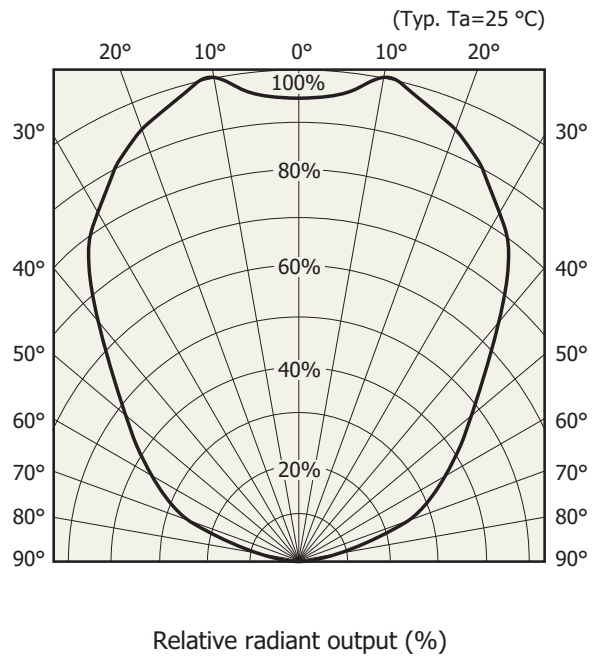
**Radiant flux vs. forward current**



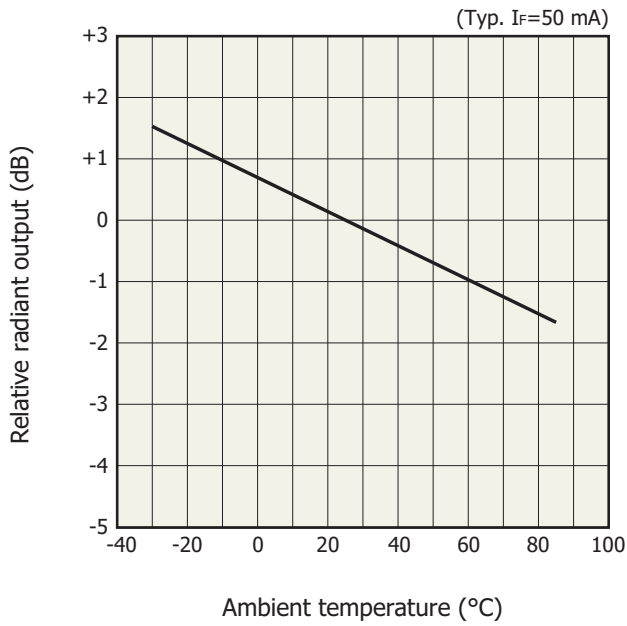
**Forward current vs. forward voltage**



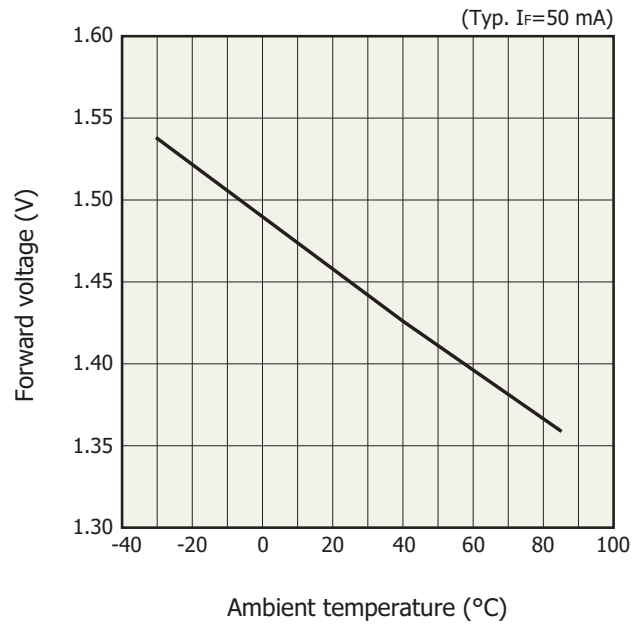
**Directivity**



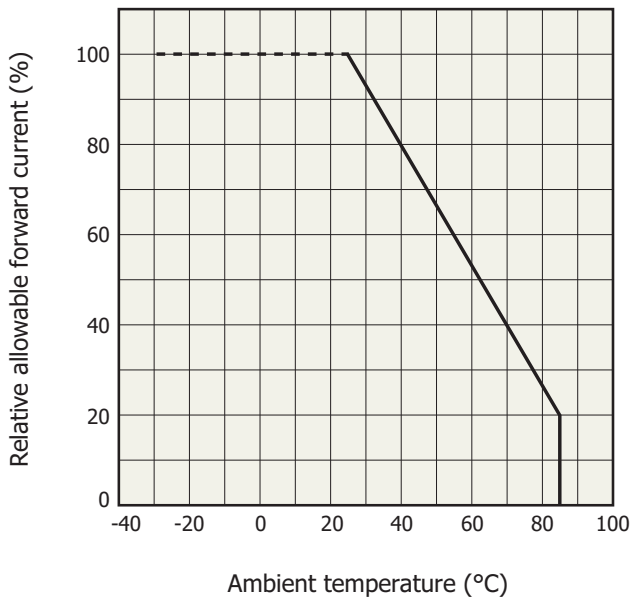
**Radiant output vs. ambient temperature**



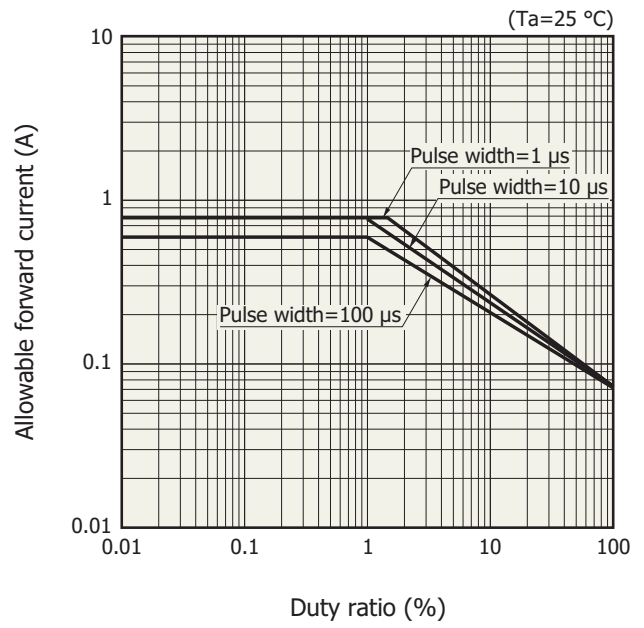
**Forward voltage vs. ambient temperature**



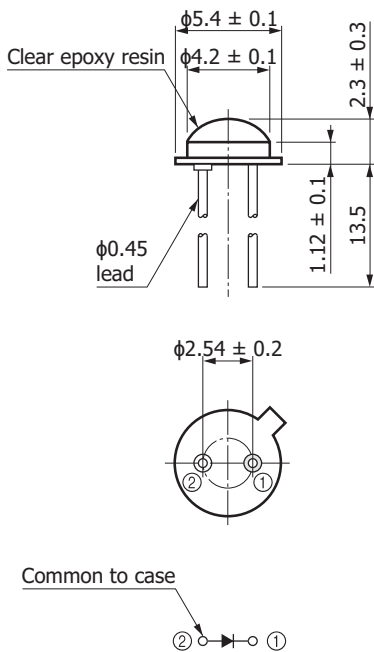
**Allowable forward current vs. ambient temperature**



**Allowable forward current vs. duty ratio**



### Dimensional outline (unit: mm)



### Related information

[www.hamamatsu.com/sp/ssd/doc\\_en.html](http://www.hamamatsu.com/sp/ssd/doc_en.html)

#### Precautions

- Disclaimer
- Metal, ceramic, plastic products

Information described in this material is current as of November, 2015.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

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