

Infrared LED

L4100

Resin-potted metal package LED



Features

- High reliability
- High output power

Applications

- Auto focus
- Optical switches
- Auto control equipment

■ Absolute maximum ratings (Ta=25 °C)

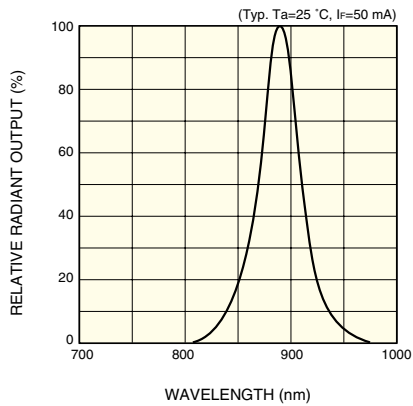
Parameter	Symbol	Condition	Value	Unit
Forward current	IF		70	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1 %	0.8	A
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100 *	°C

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

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

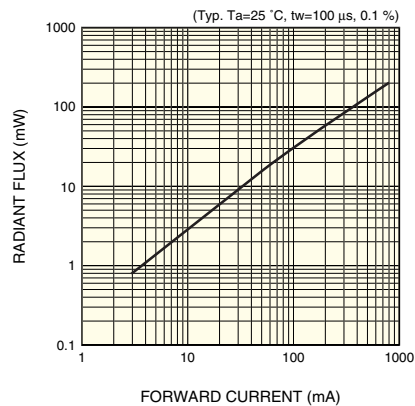
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ_p	IF=50 mA	870	890	920	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	50	-	nm
Forward voltage	VF	IF=50 mA	-	1.45	1.60	V
Pulse forward voltage	VFP	IF=0.8 A	-	3	3.7	V
Reverse current	IR	VR=5 V	-	-	5	μA
Radiant flux	ϕ_e	IF=50 mA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

■ Emission spectrum



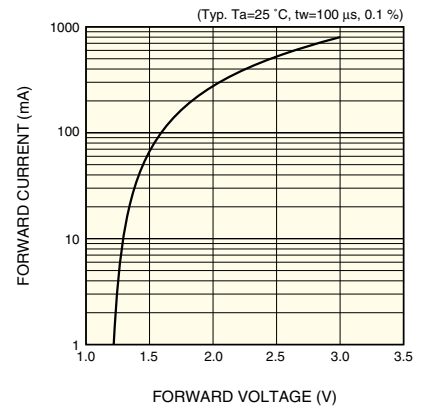
KLEDB0117EB

■ Radiant flux vs. forward current



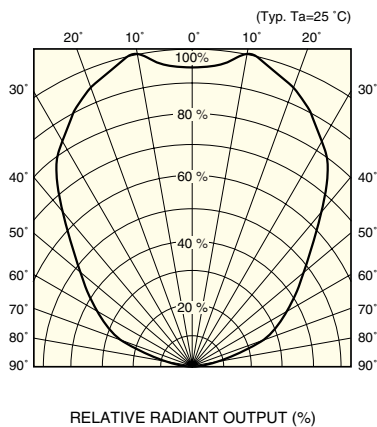
KLEDB0177EA

■ Forward current vs. forward voltage



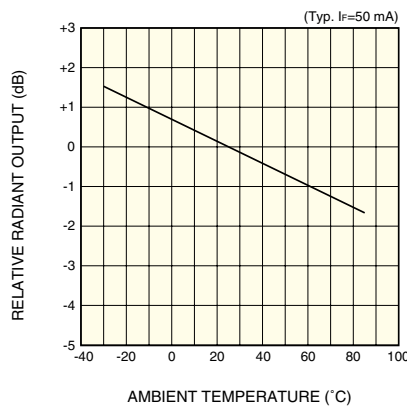
KLEDB0178EA

■ Directivity



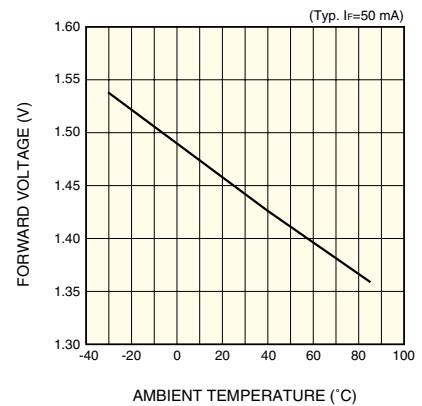
KLEDB0179EA

■ Radiant output vs. ambient temperature



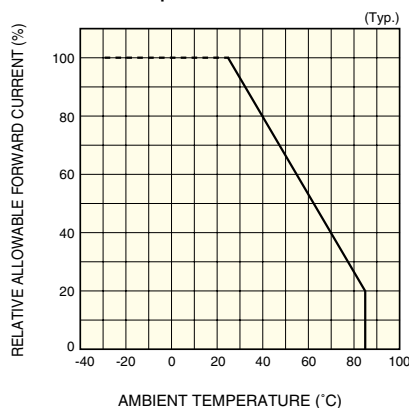
KLEDB0145EA

■ Forward voltage vs. ambient temperature



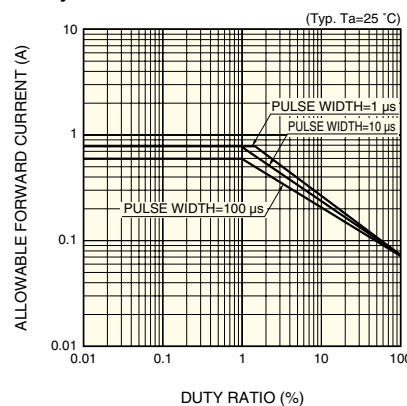
KLEDB0180EA

■ Allowable forward current vs. ambient temperature



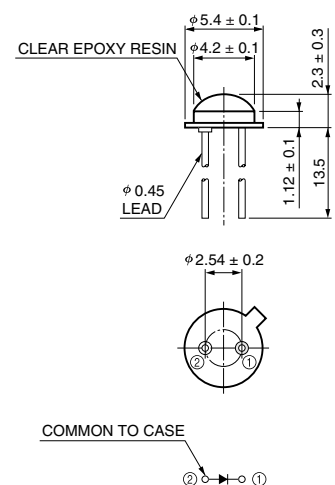
KLEDB0027EB

■ Allowable forward current vs. duty ratio



KLEDB0037EB

■ Dimensional outline (unit: mm)



KLEDA0009ED

HAMAMATSU

HAMAMATSU PHOTONICS K.K., Solid State Division

1126-1 Ichino-cho, Higashi-ku, Hamamatsu City, 435-8558 Japan, Telephone: (81) 53-434-3311, Fax: (81) 53-434-5184, <http://www.hamamatsu.com>

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P.O.Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1) 908-231-0960, Fax: (1) 908-231-1218

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49) 08152-3750, Fax: (49) 08152-2658

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trappu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: 33-(1) 69 53 71 00, Fax: 33-(1) 69 53 71 10

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44) 1707-294888, Fax: (44) 1707-325777

North Europe: Hamamatsu Photonics Norden AB: Smidesvägen 12, SE-171 41 Solna, Sweden, Telephone: (46) 8-509-031-00, Fax: (46) 8-509-031-01

Italy: Hamamatsu Photonics Italia S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39) 02-935-81-733, Fax: (39) 02-935-81-741

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