

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)

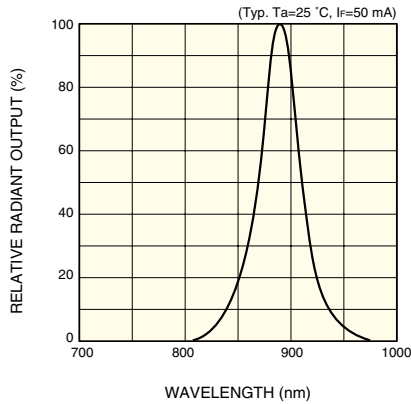
Parameter	Symbol	Condition	Value	Unit
Forward current	IF		70	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1 %	0.8	A
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100 *	°C

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

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

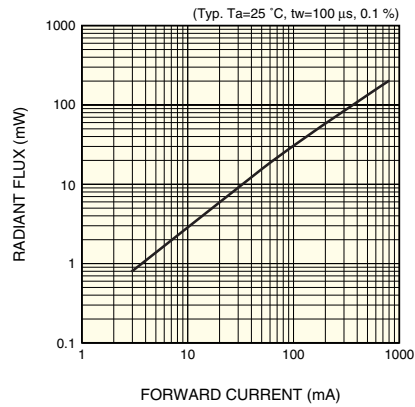
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ_p	IF=50 mA	870	890	920	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	50	-	nm
Forward voltage	VF	IF=50 mA	-	1.45	1.60	V
Pulse forward voltage	VFP	IF=0.8 A	-	3	3.7	V
Reverse current	IR	VR=5 V	-	-	5	μA
Radiant flux	ϕ_e	IF=50 mA	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



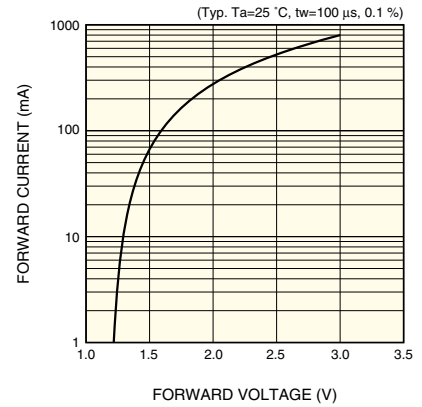
KLEDB0117EB

Radiant flux vs. forward current



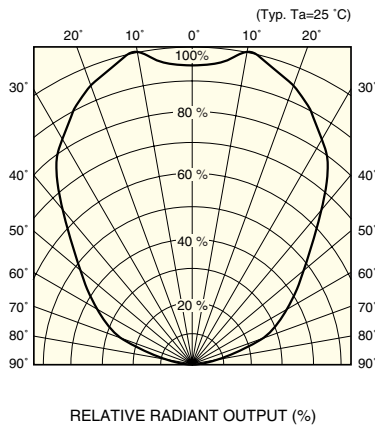
KLEDB0177EA

Forward current vs. forward voltage



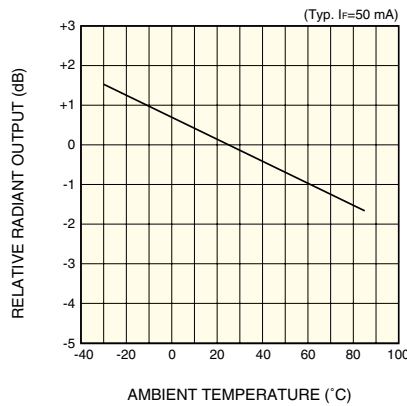
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Directivity



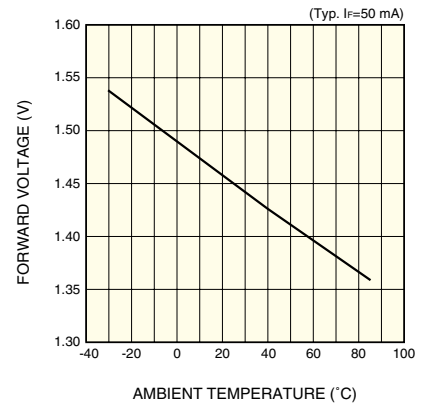
KLEDB0179EA

Radiant output vs. ambient temperature



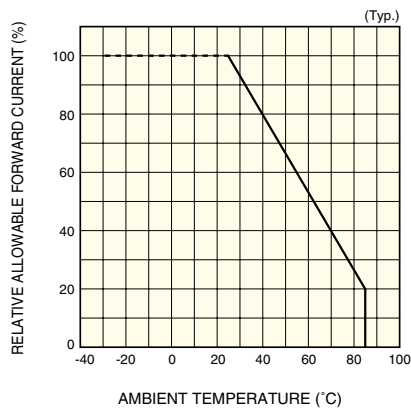
KLEDB0145EA

Forward voltage vs. ambient temperature



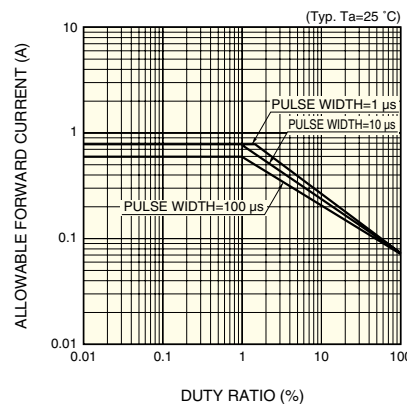
KLEDB0180EA

Allowable forward current vs. ambient temperature



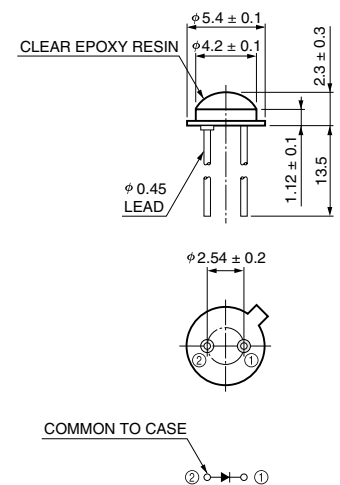
KLEDB0027EB

Allowable forward current vs. duty ratio



KLEDB0037EB

Dimensional outline (unit: mm)



KLEDA0009ED

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