

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)

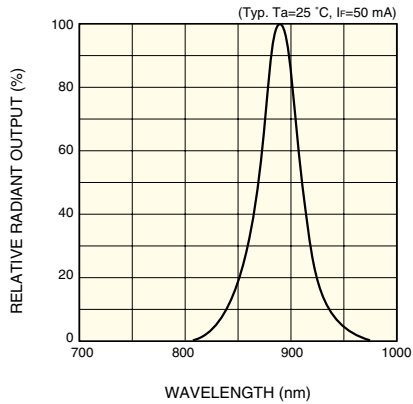
Parameter	Symbol	Condition	Value	Unit
Forward current	I _F		70	mA
Reverse voltage	V _R		5	V
Pulse forward current	I _{FP}	Pulse width=10 μs Duty ratio=1 %	0.8	A
Operating temperature	T _{opr}		-30 to +85	°C
Storage temperature	T _{stg}		-40 to +100 *	°C

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

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

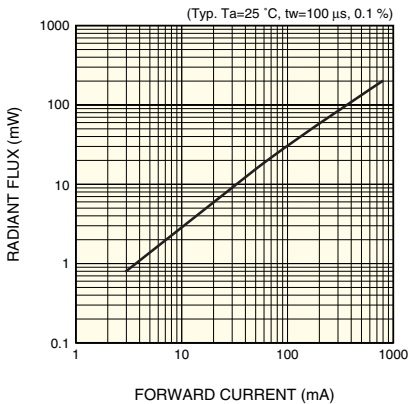
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ _p	I _F =50 mA	870	890	920	nm
Spectral half width	Δλ	I _F =50 mA	-	50	-	nm
Forward voltage	V _F	I _F =50 mA	-	1.45	1.60	V
Pulse forward voltage	V _{FP}	I _F =0.8 A	-	3	3.7	V
Reverse current	I _R	V _R =5 V	-	-	5	μA
Radiant flux	φ _e	I _F =50 mA	12	14	-	mW
Radiant illuminance	P _E	I _F =50 mA	-	1.3	-	mW/cm ²
Rise time	t _r	I _F =50 mA	-	0.45	0.7	μs
Fall time	t _f	I _F =50 mA	-	0.45	0.7	μs

■ Emission spectrum



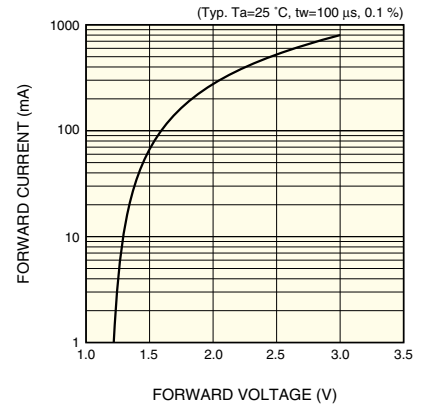
KLEDB0117EB

■ Radiant flux vs. forward current



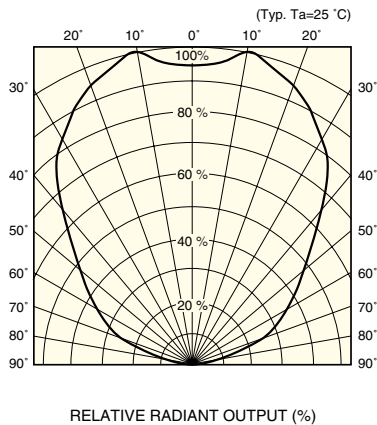
KLEDB0177EA

■ Forward current vs. forward voltage



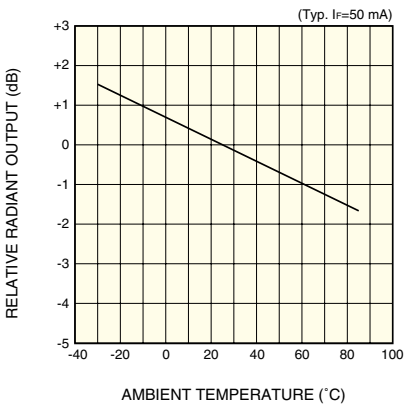
KLEDB0178EA

■ Directivity



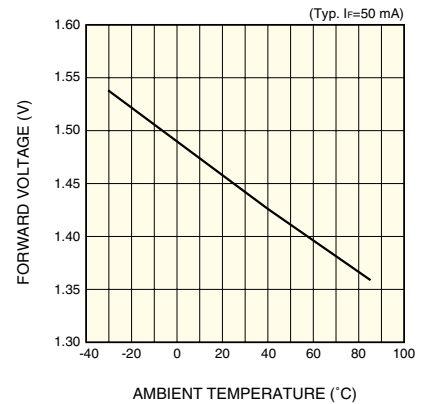
KLEDB0179EA

■ Radiant output vs. ambient temperature



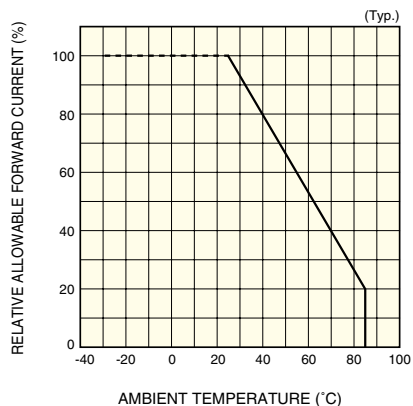
KLEDB0145EA

■ Forward voltage vs. ambient temperature



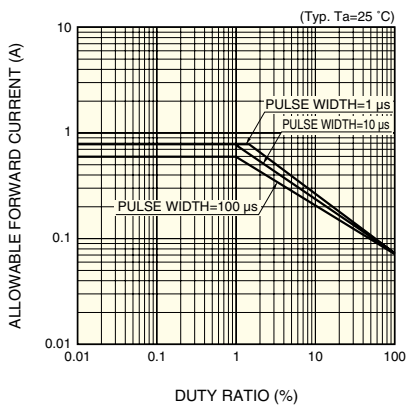
KLEDB0180EA

■ Allowable forward current vs. ambient temperature



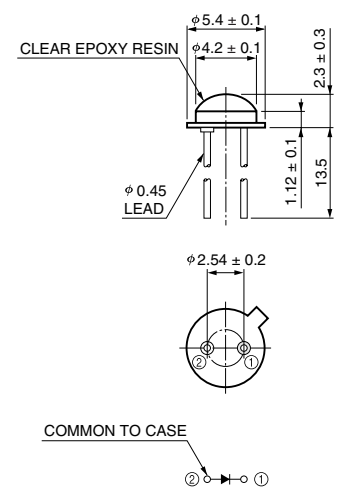
KLEDB0027EB

■ Allowable forward current vs. duty ratio



KLEDB0037EB

■ Dimensional outline (unit: mm)



KLEDA0009ED

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