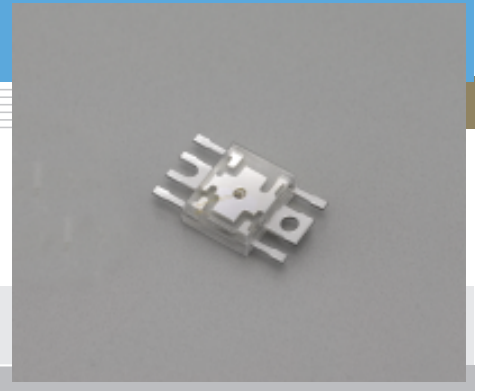


Infrared LED

L5871, L6486

Plastic package LED for camera auto-focus



Features

- Low forward voltage: 2.4 V (IF=1.0 A)
- High radiant output power by constant voltage drive
- Small emission spot (reflector size)

Applications

- Auto-focus

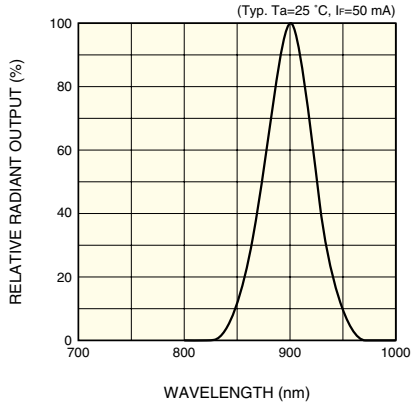
■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Condition	Value	Unit
Forward current	IF		80	mA
Reverse voltage	VR		3	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1 %	1.0	A
Operating temperature	Topr		-25 to +80	°C
Storage temperature	Tstg		-30 to +100	°C

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

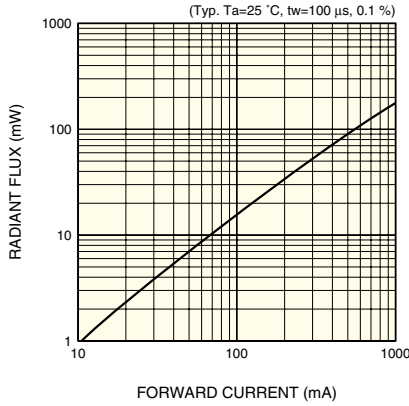
Parameter	Symbol	Condition	L5871			L6486			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λ_p	IF=50 mA	880	900	930	880	900	930	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	60	-	-	60	-	nm
Forward voltage	VF	IF=50 mA	-	1.35	1.45	-	1.35	1.45	V
Pulse forward voltage	VFP	IF=1.0 A	-	2.4	2.8	-	2.4	2.8	V
Reverse current	IR	VR=3 V	-	-	30	-	-	30	μA
Radiant flux	ϕ_e	IF=50 mA	5.0	7.0	-	5.0	7.0	-	mW
Radiant illuminance	PE	IF=50 mA	-	0.7	-	-	0.4	-	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



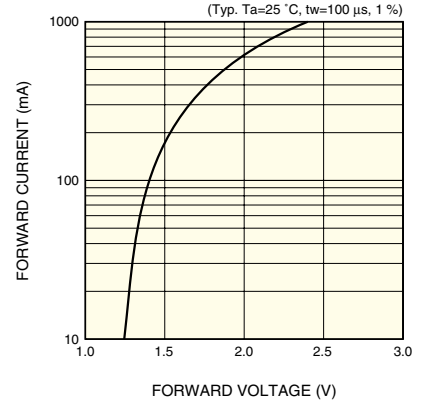
KLEDB0138EB

Radiant flux vs. forward current



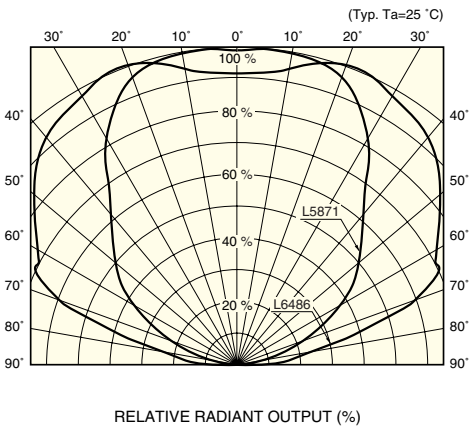
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Forward current vs. forward voltage



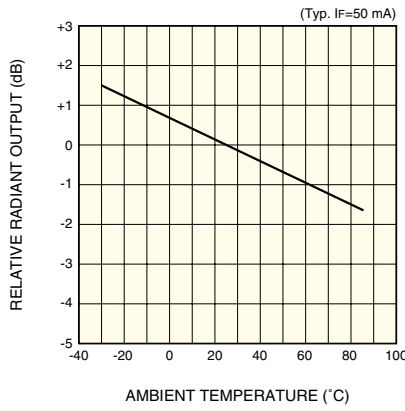
KLEDB0198EA

Directivity



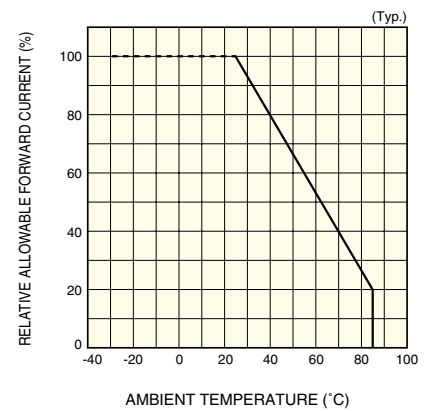
KLEDB0152EB

Radiant output vs. ambient temperature



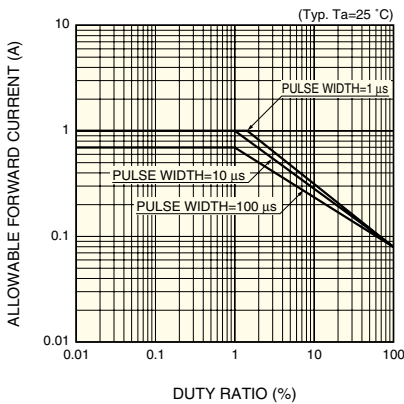
KLEDB0200EA

Allowable forward current vs. ambient temperature



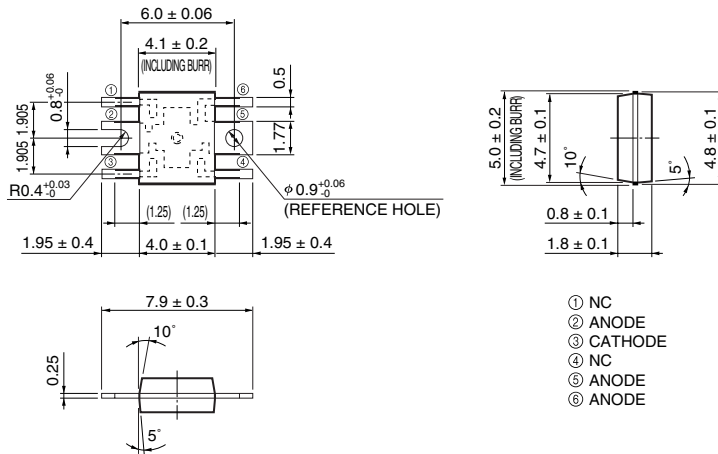
KLEDB0027EB

Allowable forward current vs. duty ratio



KLEDB0038EA

Dimensional outline (unit: mm)



KLEDA0057EA