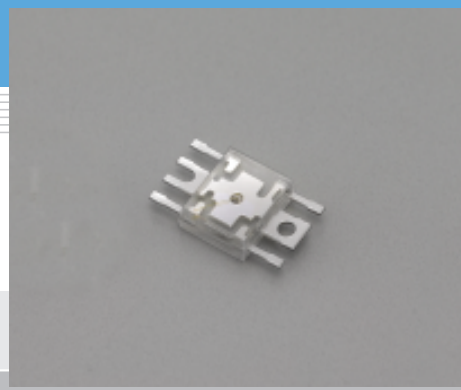


Infrared LED

L5871, L6486

Plastic package LED for camera auto-focus



Features

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

Applications

- Auto-focus

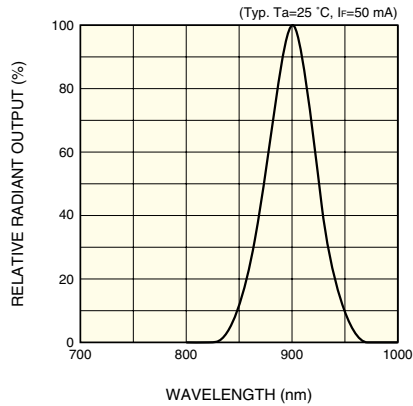
■ Absolute maximum ratings ($T_a=25$ °C)

Parameter	Symbol	Condition	Value	Unit
Forward current	I_F		80	mA
Reverse voltage	V_R		3	V
Pulse forward current	I_{FP}	Pulse width=10 μ s Duty ratio=1 %	1.0	A
Operating temperature	T_{opr}		-25 to +80	°C
Storage temperature	T_{stg}		-30 to +100	°C

■ Electrical and optical characteristics ($T_a=25$ °C)

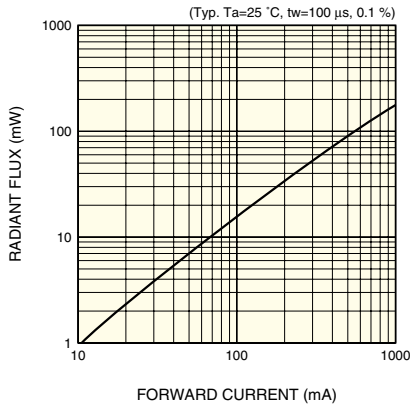
Parameter	Symbol	Condition	L5871			L6486			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λ_p	$I_F=50$ mA	880	900	930	880	900	930	nm
Spectral half width	$\Delta\lambda$	$I_F=50$ mA	-	60	-	-	60	-	nm
Forward voltage	V_F	$I_F=50$ mA	-	1.35	1.45	-	1.35	1.45	V
Pulse forward voltage	V_{FP}	$I_F=1.0$ A	-	2.4	2.8	-	2.4	2.8	V
Reverse current	I_R	$V_R=3$ V	-	-	30	-	-	30	μ A
Radiant flux	ϕ_e	$I_F=50$ mA	5.0	7.0	-	5.0	7.0	-	mW
Radiant illuminance	P_E	$I_F=50$ mA	-	0.7	-	-	0.4	-	mW/cm ²
Rise time	t_r	$I_F=50$ mA, 10 to 90 %	-	0.45	0.7	-	0.45	0.7	μ s
Fall time	t_f	$I_F=50$ mA, 90 to 10 %	-	0.45	0.7	-	0.45	0.7	μ s

Emission spectrum



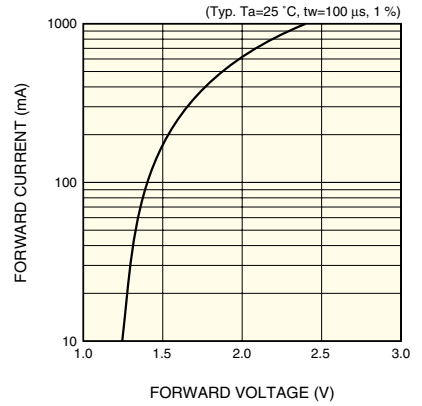
KLEDB0138EB

Radiant flux vs. forward current



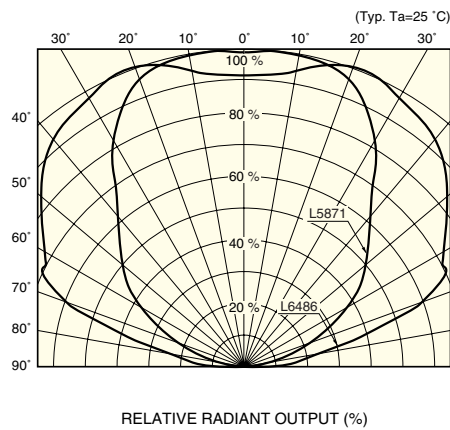
KLEDB0151EA

Forward current vs. forward voltage



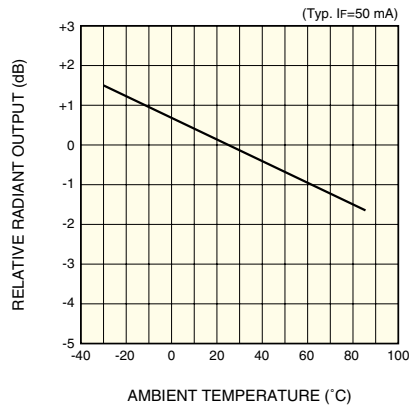
KLEDB0198EA

Directivity



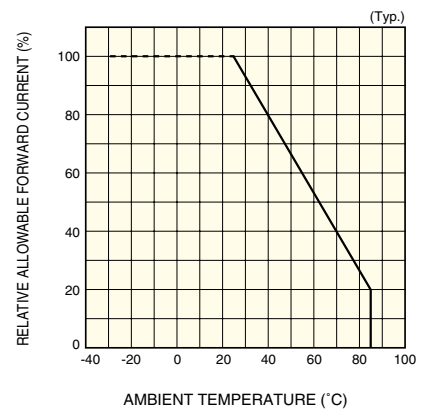
KLEDB0152EB

Radiant output vs. ambient temperature



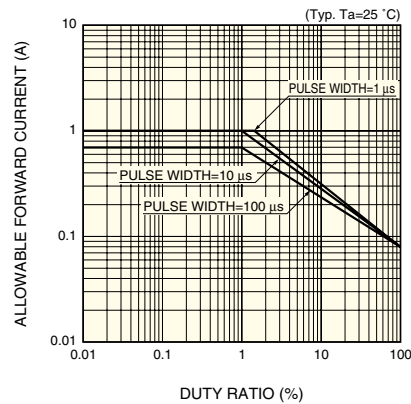
KLEDB0200EA

Allowable forward current vs. ambient temperature



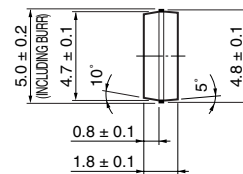
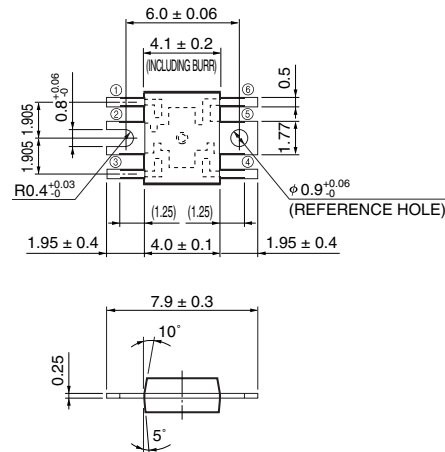
KLEDB0027EB

Allowable forward current vs. duty ratio



KLEDB0038EA

Dimensional outline (unit: mm)



- ① NC
- ② ANODE
- ③ CATHODE
- ④ NC
- ⑤ ANODE
- ⑥ ANODE

KLEDA0057EA

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