

Infrared LED

L2388 series

TO-46 style GaAs infrared LED



Features

- High radiant output power
- High reliability

Applications

- Optical switches
- Automatic control systems
- Auto-focus

■ Absolute maximum ratings (Ta=25 °C)

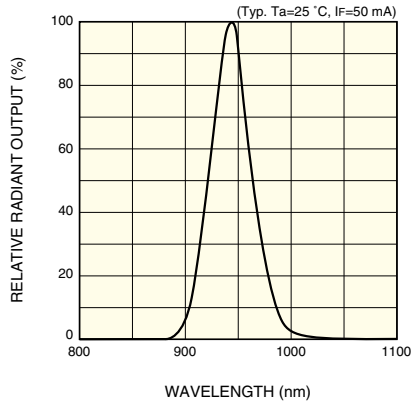
Parameter	Symbol	Condition	Value	Unit
Forward current	IF		80	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1 %	1.0	A
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100 *	°C

* L2388 is guaranteed to resist temperature cycle test of up to 5 cycles.

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

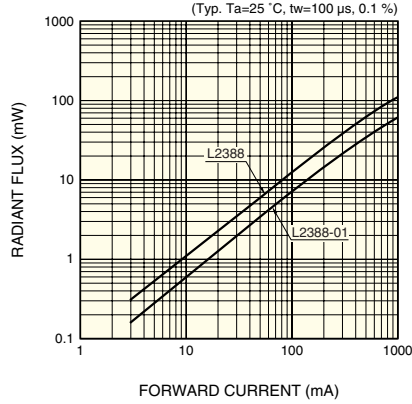
Parameter	Symbol	Condition	L2388			L2388-01			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λ_p	IF=50 mA	920	945	970	920	945	970	nm
Spectral half width	$\Delta\lambda$	IF=50 mA	-	45	-	-	45	-	nm
Forward voltage	VF	IF=50 mA	-	1.3	1.4	-	1.3	1.4	V
Pulse forward voltage	VFP	IF=1.0 A	-	2.3	2.9	-	2.3	2.9	V
Reverse current	IR	VR=5 V	-	-	5	-	-	5	μA
Radiant flux	ϕ_e	IF=50 mA	4.5	6.0	-	2.6	3.4	-	mW
Radiant illuminance	PE	IF=50 mA	-	0.6	-	-	1.4	-	mW/cm ²
Rise time	tr	IF=50 mA, 10 to 90 %	-	1.2	2.0	-	1.2	2.0	μs
Fall time	tf	IF=50 mA, 90 to 10 %	-	1.3	2.0	-	1.3	2.0	μs

■ Emission spectrum



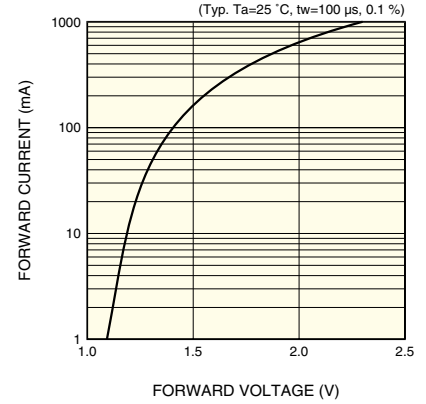
KLEDB0122EA

■ Radiant flux vs. forward current



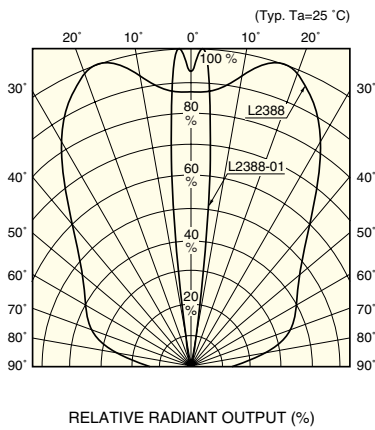
KLEDB0209EA

■ Forward current vs. forward voltage



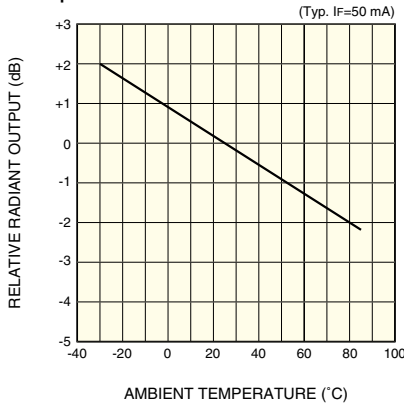
KLEDB0210EA

■ Directivity



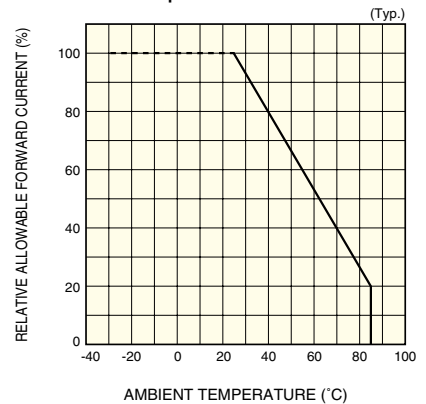
KLEDB0123EA

■ Radiant output vs. ambient temperature



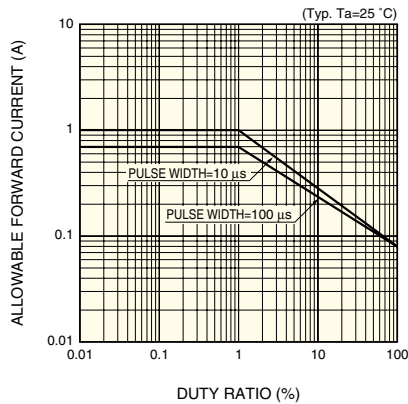
KLEDB0211EA

■ Allowable forward current vs. ambient temperature



KLEDB0027EB

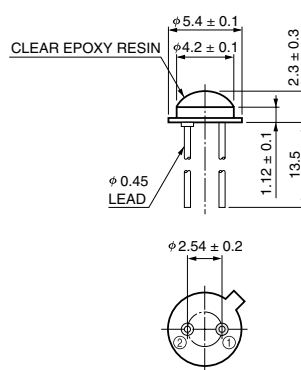
■ Allowable forward current vs. duty ratio



KLEDB0038EA

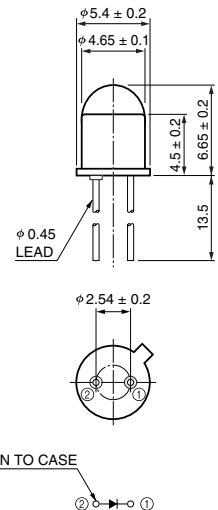
■ Dimensional outlines (unit: mm)

① L2388



KLEDA0009ED

② L2388-01



KLEDA0052EB

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