

CL - 1KL7

The CL - 1KL7 is a high - power GaAlAs IRED mounted in a durable, hermetically sealed TO - 18 metal can package. The output power is high compared to GaAs IREDs.

FEATURES

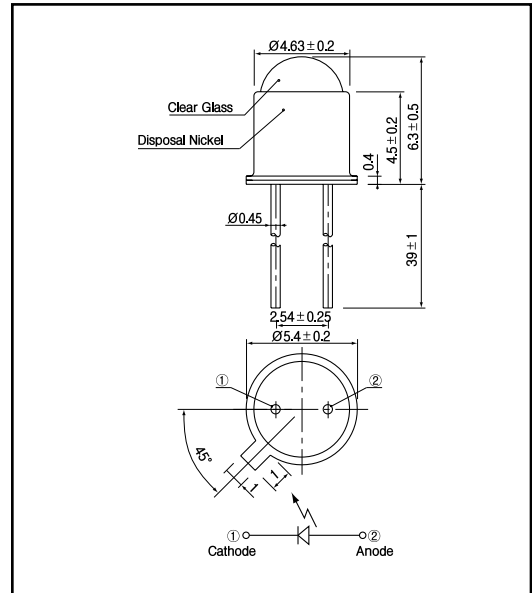
- TO - 18 can type with glass lense
- Peak emission wavelength $\lambda_p = 880\text{nm}$
- Narrow beam angle $\pm 8\text{deg.}$
- High output power
- High reliability

APPLICATIONS

- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta = 25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	100	mA
Power dissipation	P_D	200	mW
Pulse forward current ^{*1}	I_{FP}	1	A
Operating temp.	$T_{opr.}$	-30 +100	°C
Storage temp.	$T_{stg.}$	-55 +150	°C
Soldering temp. ^{*2}	$T_{sol.}$	260	°C

*1. pulse width : $t_w \leq 100 \mu\text{sec.}$ period : $T = 10\text{msec.}$

*2. For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

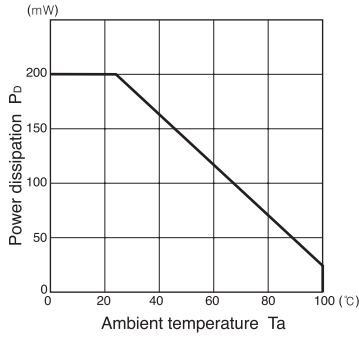
(Ta = 25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	$I_F = 100\text{mA}$		1.6	2.0	V
Reverse current	I_R	$V_R = 5\text{V}$			10	μA
Peak emission wavelength	λ_p	$I_F = 50\text{mA}$		880		nm
Spectral bandwidth	$\Delta \lambda$	$I_F = 50\text{mA}$		50		nm
Radiant intensity	P_D	$I_F = 100\text{mA}$		6.5		mW
Half angle	$\Delta \theta$			± 8		deg.

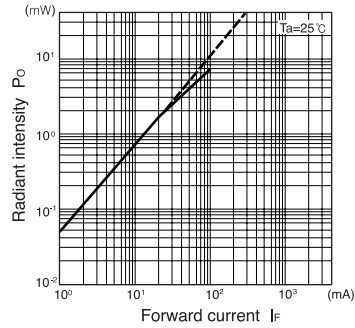
Infrared Emitting Diodes(GaAlAs)

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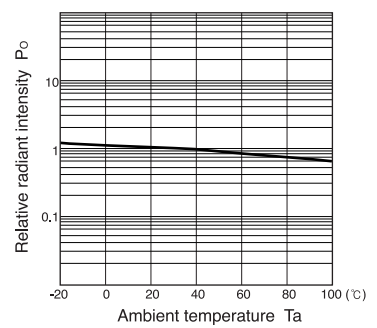
Power dissipation Vs. Ambient temperature



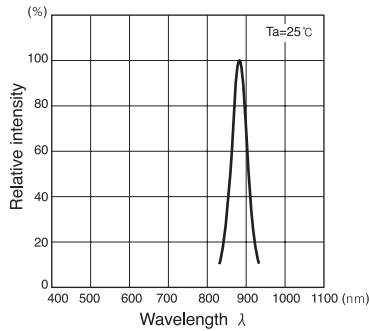
Radiant intensity Vs. Forward current



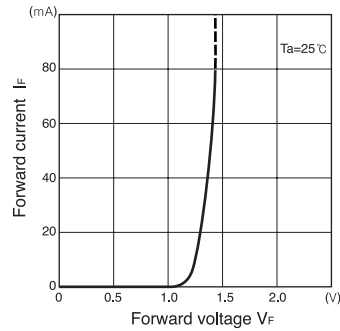
Relative radiant intensity Vs. Ambient temperature



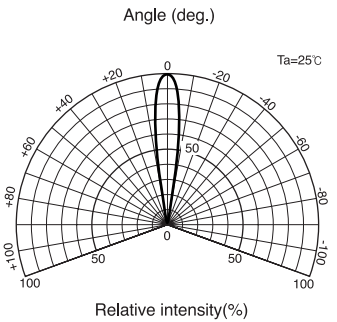
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance

