

# EL - 1KL3 · EL - 1KL5

The EL - 1KL3 and 1KL5 are high - power GaAs IREs mounted in durable, hermetically sealed TO - 18 metal can package, which provides years of reliable performance even under demanding conditions such as use outdoors.

**FEATURES**

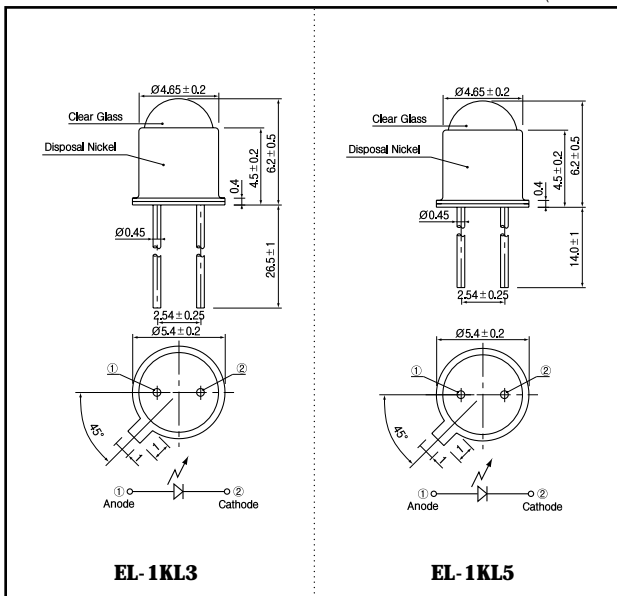
- Narrow beam angle
- Durable
- High reliability in demanding environments

**APPLICATIONS**

- Optical emitters
- Optical switches
- Encoders
- Smoke sensors

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	V <sub>R</sub>	5	V
Forward current	I <sub>F</sub>	100	mA
Pulse forward current *1	I <sub>FP</sub>	1	A
Power dissipation	P <sub>c</sub>	170	mW
Operating temp.	T <sub>opr.</sub>	- 40 - + 100	
Storage temp.	T <sub>stg.</sub>	- 55 - + 125	
Soldering temp. *2	T <sub>sol.</sub>	260	

\*1. pulse width : tw 100 ꝑec.period : T=10msec.

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

**ELECTRO-OPTICAL CHARACTERISTICS**

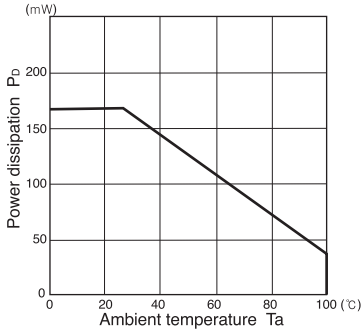
(Ta=25 )

Item	Symbol	Conditions	EL - 1KL3			EL - 1KL5			Unit.
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V <sub>f</sub>	I <sub>F</sub> =100mA	1.35	1.7		1.35	1.7	V	
Reverse current	I <sub>r</sub>	V <sub>R</sub> =5V			10			µA	
Capacitance	C <sub>t</sub>	f=1MHz	25			25		pF	
Radiant intensity	P <sub>o</sub>	I <sub>F</sub> =100mA	15			10		mW/sr	
Peak emission wavelength	λ	I <sub>F</sub> =100mA	940			940		nm	
Spectral bandwidth 50%	Δλ	I <sub>F</sub> =100mA	50			50		nm	
Half angle	θ		± 8			± 5		deg.	

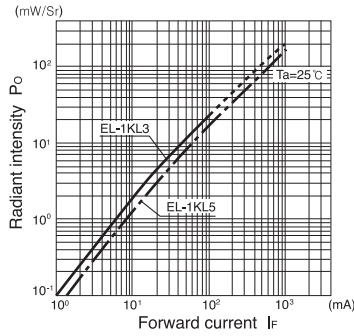
# Infrared Emitting Diodes(GaAs)

## EL - 1KL3 · EL - 1KL5

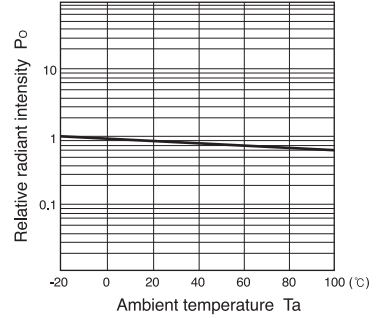
**Power dissipation Vs. Ambient temperature**



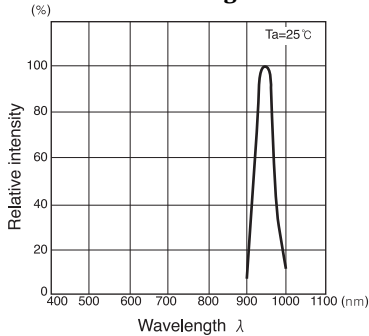
**Radiant intensity Vs. Forward current**



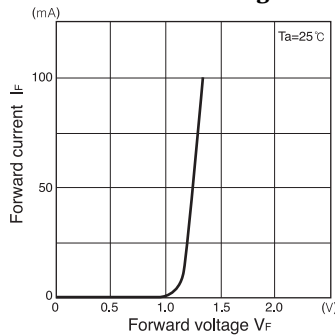
**Relative radiant intensity Vs. Ambient temperature**



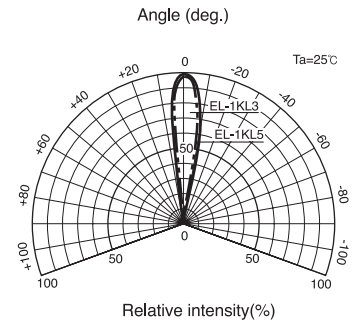
**Relative intensity Vs. Wavelength**



**Forward current Vs. Forward voltage**



**Radiant Pattern**



**Relative radiant intensity Vs. Distance**

