



深圳东裕光大电子有限公司
广州市东裕光电科技有限公司

产品规格书 SPECIFICATION

| | |
|-----------------|-------------------------------|
| 客户名称 CUSTOMER | |
| 产品名称 PRODUCTION | 红外发射管 InfraRed Emitting Diode |
| 产品型号 MODEL | EL-1KLX(DYWH) |
| 版本号 VERSION NO | A1.0 |

地址(Add): 深圳市光明区凤凰街道光明大道 481 号乐府广场 1B 栋 1609

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| 客户确认 CUSTOMER CONFIRMATION | 审核 CHECKED BY | 编制 PREPARED BY |
|-------------------------------|------------------|-------------------|
| | 周毅兴 | 陈少龙 |

The EL - 1KL3(DYWH) and EL-1KL5(DYWH) are high - power GaAs IREDs 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

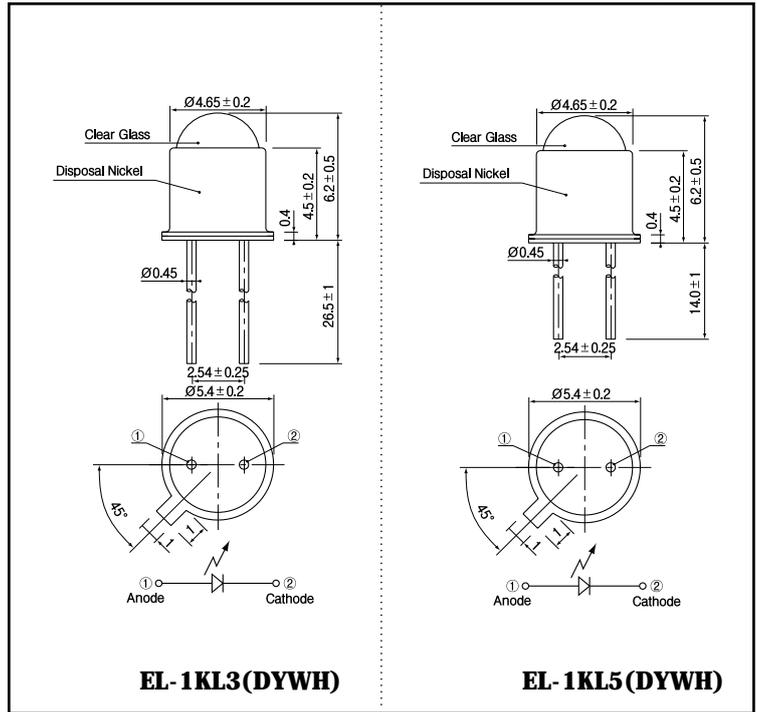
- Narrow beam angle
- Durable
- High reliability in demanding environments

APPLICATIONS

- Optical emitters
- Optical switches
- Encoders
- Smoke sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

| Item | Symbol | Rating | Unit |
|-------------------------------------|----------|--------------|------|
| Reverse voltage | V_R | 5 | V |
| Forward current | I_F | 100 | mA |
| Pulse forward current ^{*1} | I_{FP} | 1 | A |
| Power dissipation | P_C | 170 | mW |
| Operating temp. | Topr. | - 40 ~ + 100 | |
| Storage temp. | Tstg. | - 55 ~ + 125 | |
| Soldering temp. ^{*2} | Tsol. | 260 | |

*1. pulse width : t_w 100 μ sec, period : T=10msec.

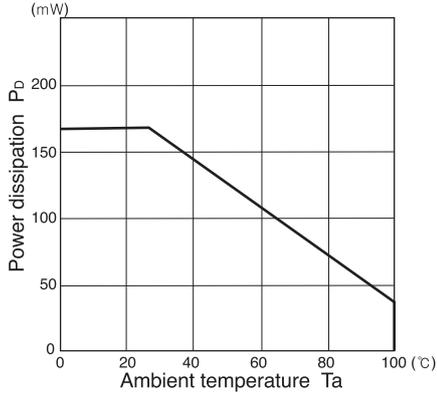
*2. For MAX.5 seconds at the position of 2 mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

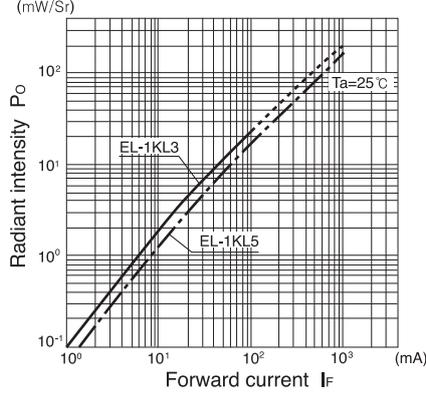
(Ta=25)

| Item | Symbol | Conditions | EL-1KL3 | | | EL-1KL5 | | | Unit. |
|--------------------------|-----------------|-------------|---------|----------|------|---------|---------|------|---------|
| | | | Min. | Typ. | Max. | Min. | Typ. | Max. | |
| Forward voltage | V_F | $I_F=100mA$ | | 1.35 | 1.7 | | 1.35 | 1.7 | V |
| Reverse current | I_R | $V_R=5V$ | | | 10 | | | 10 | μA |
| Capacitance | C_t | $f=1MHz$ | | 25 | | | 25 | | pF |
| Radiant intensity | P_o | $I_F=100mA$ | | 15 | | | 10 | | mW/sr |
| Peak emission wavelength | λ_p | $I_F=100mA$ | | 940 | | | 940 | | nm |
| Spectral bandwidth 50% | $\Delta\lambda$ | $I_F=100mA$ | | 50 | | | 50 | | nm |
| Half angle | $\Delta\theta$ | | | ± 36 | | | ± 5 | | deg. |

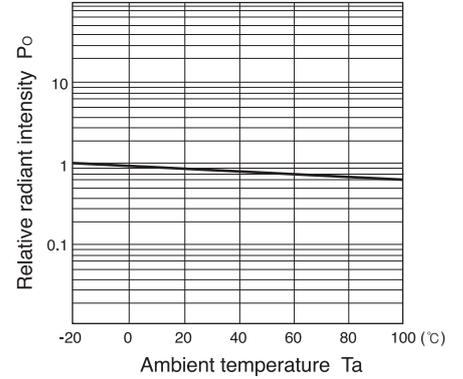
Power dissipation Vs. Ambient temperature



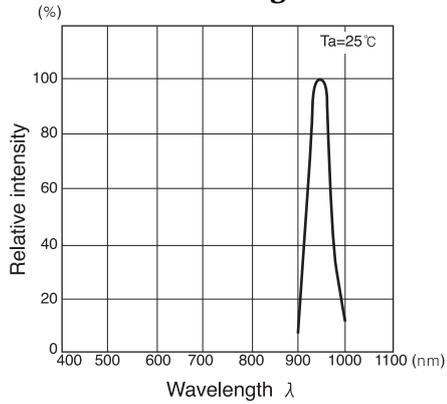
Radiant intensity Vs. Forward current



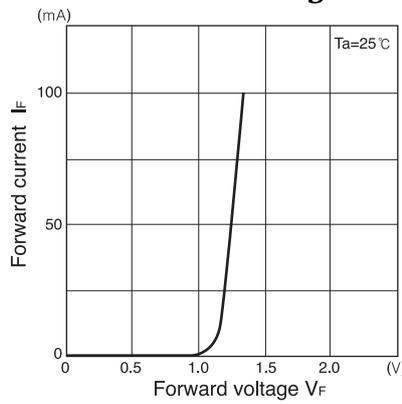
Relative radiant intensity Vs. Ambient temperature



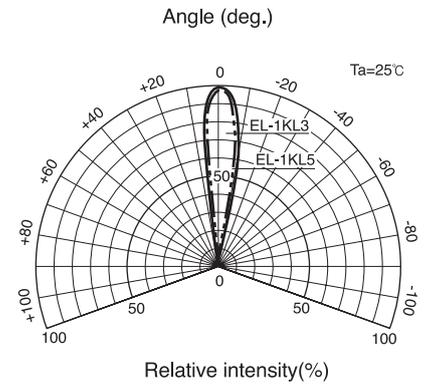
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance

