

ML-1K3

The ML-1K3 is a high-power GaAlAs IRED mounted in durable, hermetically sealed TO-18 metal can package, providing years of reliable performance even under demanding conditions such as use outdoors.

FEATURES

- Durable
- High reliability in demanding environments

APPLICATIONS

- Transportation sensors
- Infrared sensors
- Optical switches

MAXIMUM RATINGS

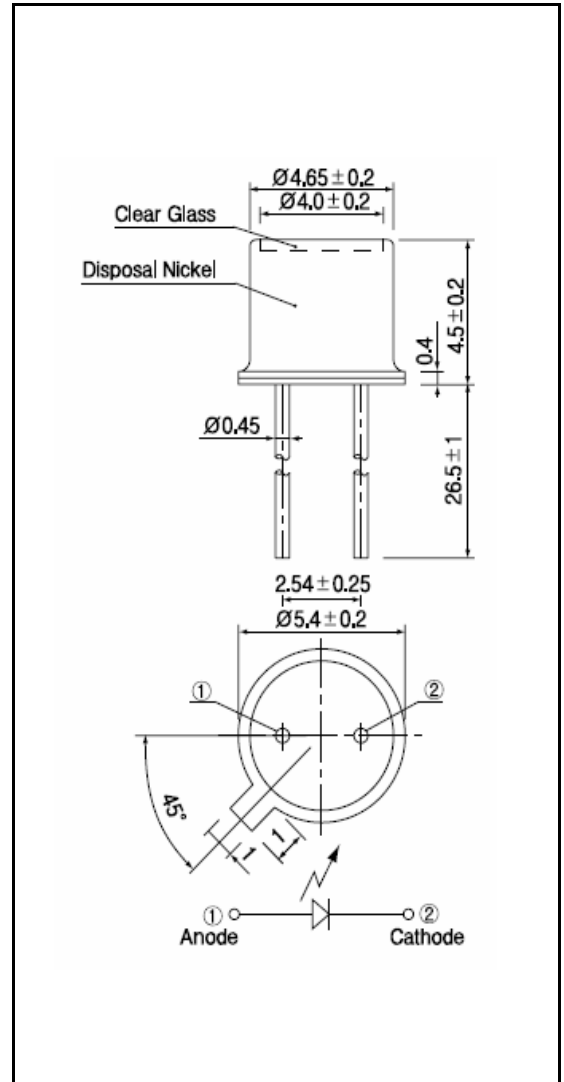
(Ta=25°C)

Parameter	Symbol	Rating	Unit
Reverse Voltage	V _R	3	V
Forward Current	I _F	50	mA
Pulse Forward Current (see Note 1)	I _{FP}	0.5	mA
Power Dissipation	P _D	85	mW
Operating Temperature	Topr.	-30~+100	°C
Storage Temperature	Tstg.	-40~+100	°C
Soldering temperature *1	Tsol.	240	°C

Notes : *1. For MAX.5 seconds at the position of 2mm from the package

DIMENSION

(Unit : mm)



ELECTRO-OPTICAL CHARACTERISTICS

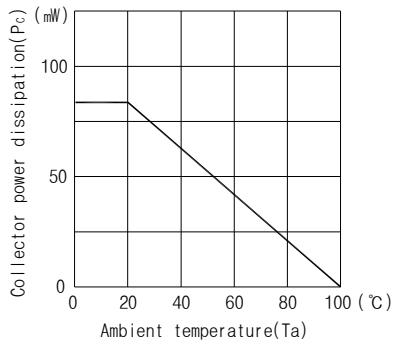
(Ta=25°C, unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F = 50 mA		1.4	1.7	V
Reverse Current	I _R	V _R = 3V			10	uA
Peak Emission Wavelength	λ_p	I _F = 50mA	-	865	-	nm
Spectral Bandwidth	$\Delta\lambda$	I _F = 50mA	-	30	-	nm
Radiant Intensity	P _o	I _F = 50mA	40			mV
Half Angle	$\Delta\theta$			± 36		deg.

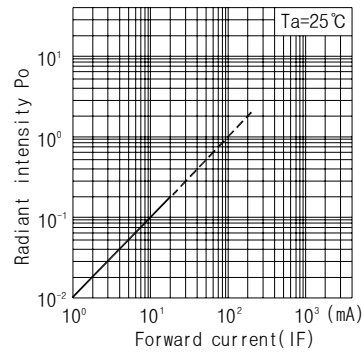
Notes : *2. Irradiance by CIE standard light source A (2850K tungsten lamp)

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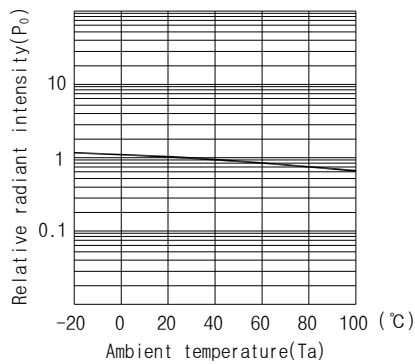
power dissipation Vs. Ambient Temperature



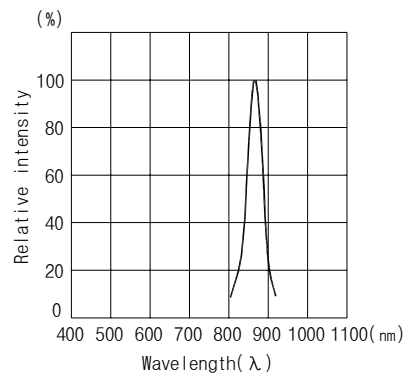
Radiant intensity Vs. Forward current



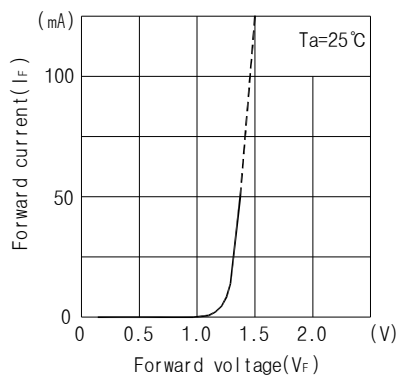
Radiant intensity Vs. Ambient temperature



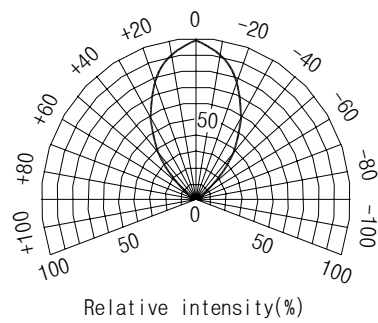
Relative Sensitivity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Radiant intensity Vs. Distance

