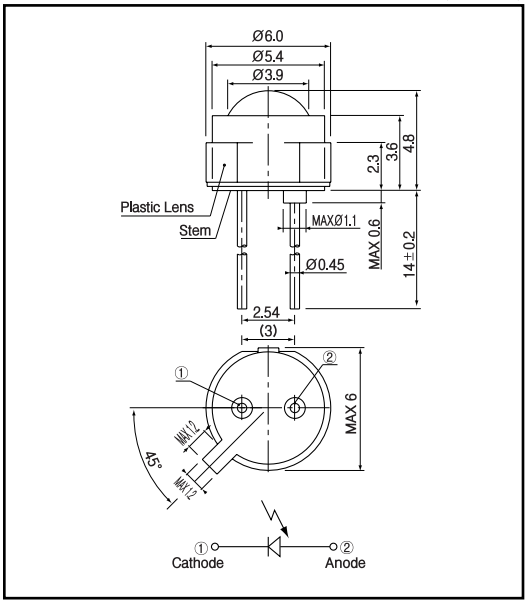
AL - 402

The AL - 402 is a high - power GaAlAs IRED, with precision optical designed attachment lens. It emits parallel infrared lights.

DIMENSIONS (Unit : mm)



FEATURES

- Parallel rays
- Low profile
- sidelooking plastic package

APPLICATIONS

- Encoders
- Emitters for automatic focusing

MAXIMUM RATINGS (Ta=25℃)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Forward current	I_F	100	mA
Pulse forward current	I_{FP}	0.3	A
Power dissipation	P_D	150	mW
Operating temp.	Topr.	- 25 ~ + 70	℃
Storage temp.	Tstg.	- 30 ~ + 80	℃
Soldering temp. *1	Tsol.	240	℃

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

ELECTRO-OPTICAL CHARACTERISTICS (Ta=25℃)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Forward voltage	V_F	I_F=50mA		1.4	2.0	V
Reverse current	I_R	V_R=5V			10	μA
Capacitance	Ct	f=1MHz		20		pF
Radiant intensity	P_O	I_F=50mA		2.2		mW/sr
Peak emission wavelength	λp	I_F=50mA		910		nm
Spectral bandwidth 50%	Δ λ	I_F=50mA		50		nm
Half angle	△θ				12	deg.
Effective emitting diameter	D			Ø3.9		mm

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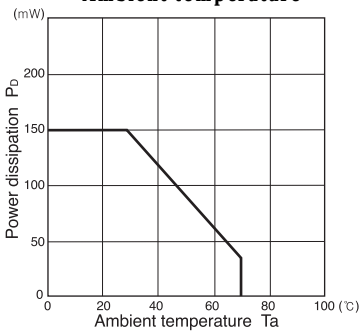
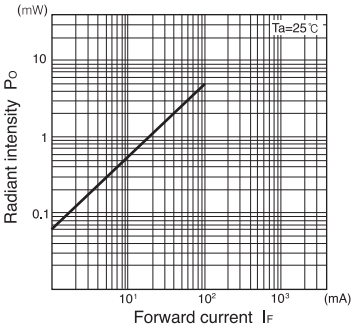
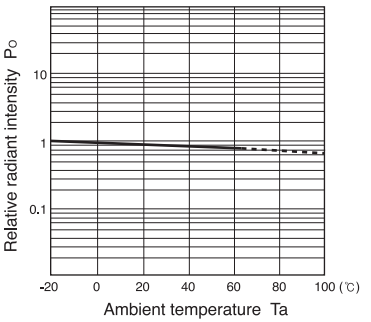
Power dissipation Vs. Ambient temperature



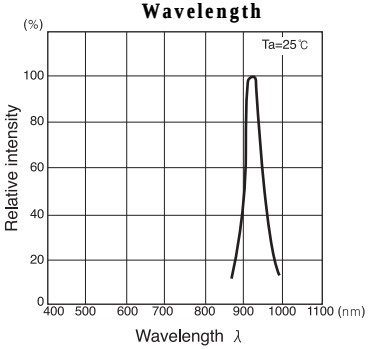
Radiant intensity Vs. Forward current



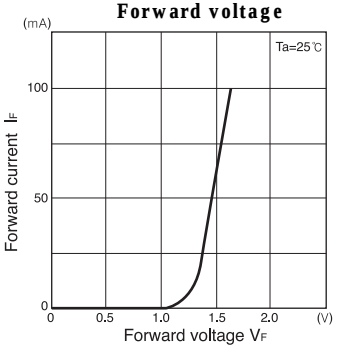
Relative radiant intensity Vs. Ambient temperature



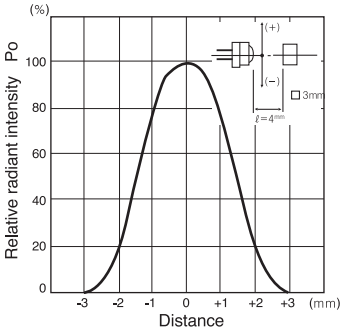
Relative intensity Vs. Wavelength



Forward current Vs. Forward voltage



Radiant Pattern



Relative radiant intensity Vs. Distance