

1. GENERAL DESCRIPTION

The CL-1L5R is a High-power GaAlAs/GaAs IRED mounted in clear plastic package, with ellipse type lensed package and cup type frame, these efficient devices have narrow beam angle.

2. FEATURES

- ** High output power
- ** Available for pulse operating
- ** Narrow beam angle

3. APPLICATIONS

- ** Encoder
- ** Optical switches
- ** Optical emitters
- ** Smoke sensors

4. ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Reverse Voltage	Vr	5	V
Forward Current	If	100	mA
#1 Pulse Forward Current	Ifp	1	A
Power Dissipation	Pd	170	mW
Operating Temp	Topr	-30 to +70	°C
Storage Temp	Tstg	-30 to +80	°C
#2 Solder Temp	Tsol	260	°C

#1. Ifp: DUTY RATIO=1/10,
PULSE WIDTH=0.1m/sec

#2. TIME : 3sec

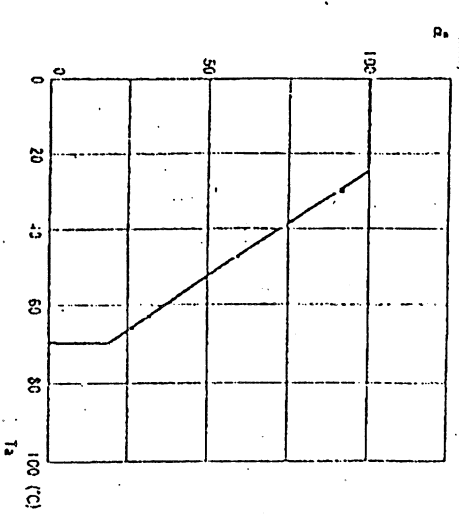
5. ELECTRO-OPTICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
Forward Voltage	Vf	If = 100mA		1.4	1.7	V
Reverse Current	Ir	Vr = 5V			10	uA
Capacitance	Ct	f = 1MHz		20		pF
#3 Radiant Intensity	Po	If = 100mA	10000	12000		mW/m ²
Peak Emission Wavelength	λ_p	If = 100mA		940		nm
Spectral Bandwidth 50%	$\Delta \lambda$	If = 100mA		45		nm
Half Angle	$\Delta \theta$			±15		deg

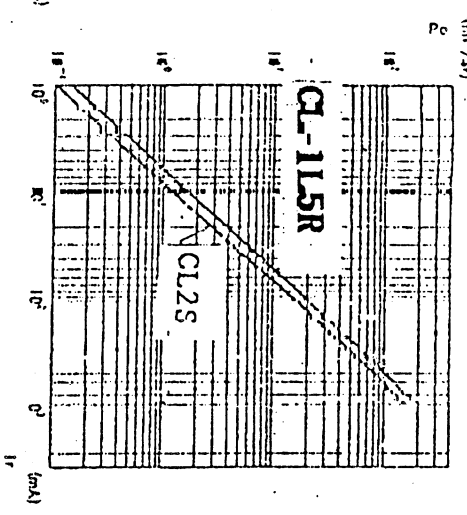
#3. Luminous Intensity measured by OEC test mechanism.

CL-1L5R, CL2S

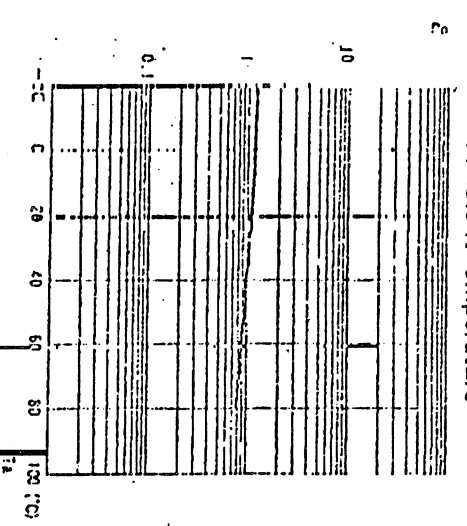
Power dissipation / Ambient temperature



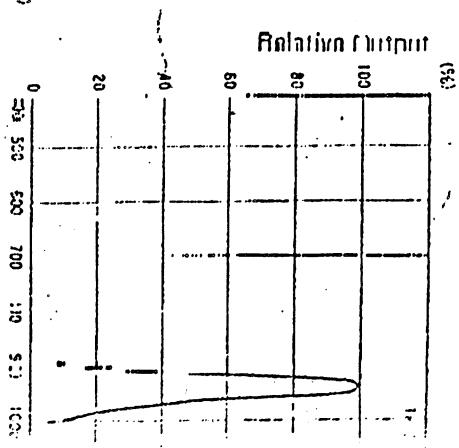
Radiant intensity / Forward current



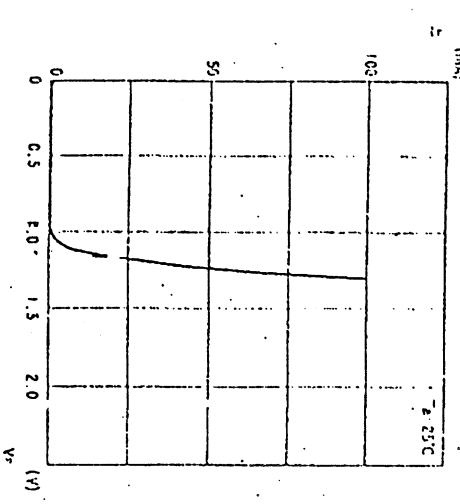
Relative radiant intensity / Ambient temperature



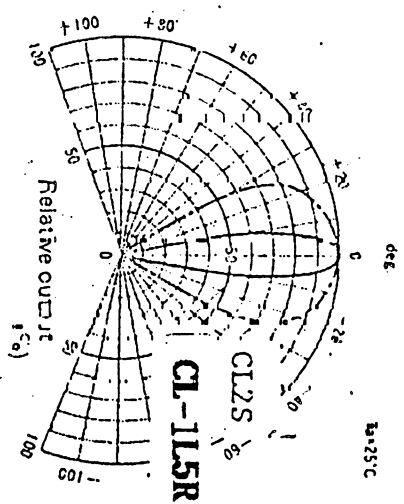
Emission spectral bandwidth



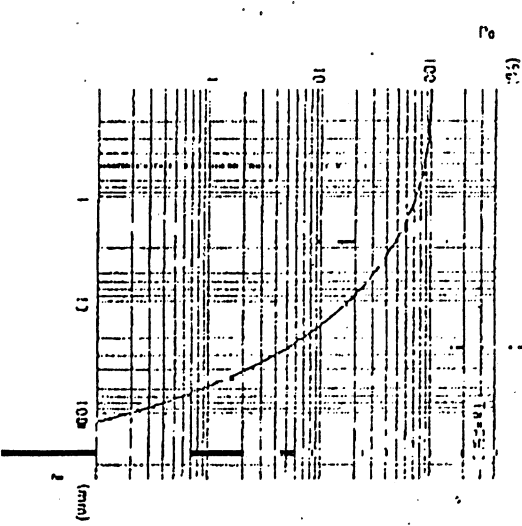
Forward current / Forward voltage



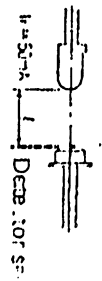
Radiation



Relative radiant intensity / Distance



* Fc/I test method



(P)

