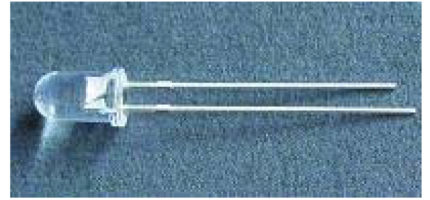


TECHNOLOGY DATA SHEET & SPECIFICATIONS

Features

- High reliability
- Peak wavelength $\lambda_p=850\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- Pb free



Descriptions

- 5013K1C-BA Infrared Emitting Diode is
Molded in Water Clear plastic package
- The device is spectrally matched with phototransistor, photodiode
and infrared receiver module



Usage Notes:

- Surge will damage the LED
- When using LED, it must use a protective resistor in series with DC current about 20mA

Applications

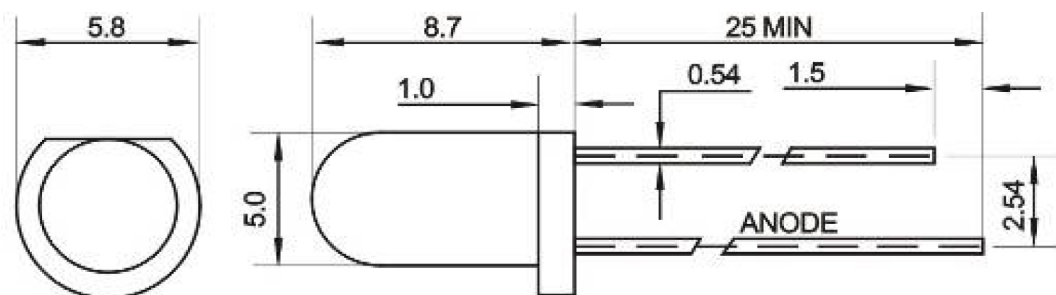
- Free air transmission system
- Infrared remote control units with high power requirement
- Smoke detector
- Infrared applied system

TECHNOLOGY DATA SHEET & SPECIFICATIONS

Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
	GaAlAs	Infrared	Water clear

Package Dimensions



UNIT:mm

Notes:

- *Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- *Protruded resin under flange is 1.5mm Max LED.
- *Bare copper alloy is exposed at tie-bar portion after cutting

TECHNOLOGY DATA SHEET & SPECIFICATIONS

Electro-Optical Characteristics ($T_a=25^{\circ}\text{C}$)

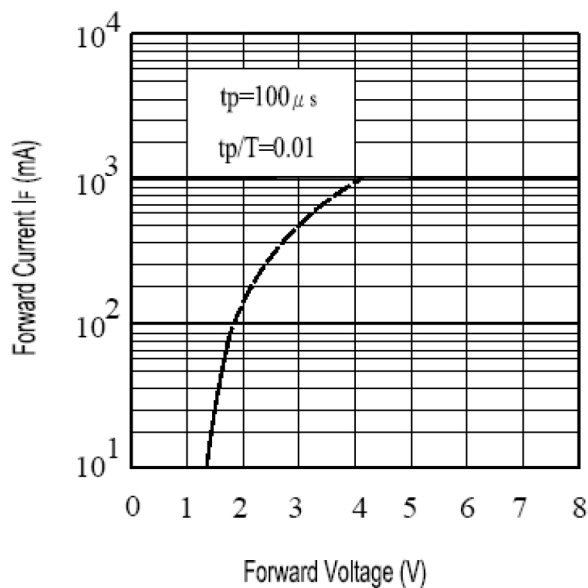
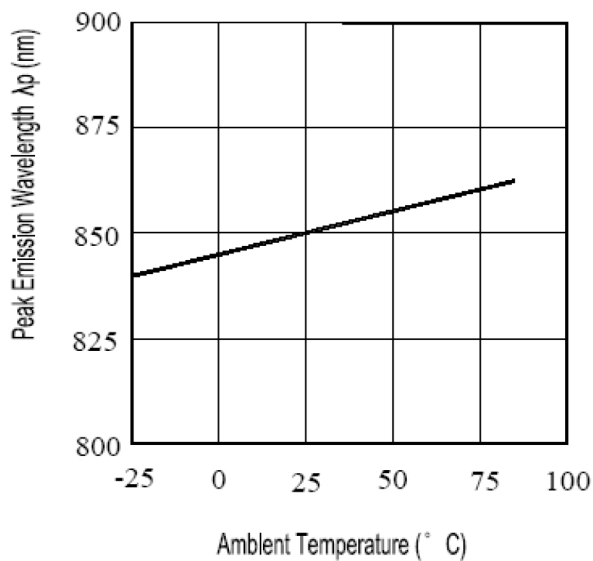
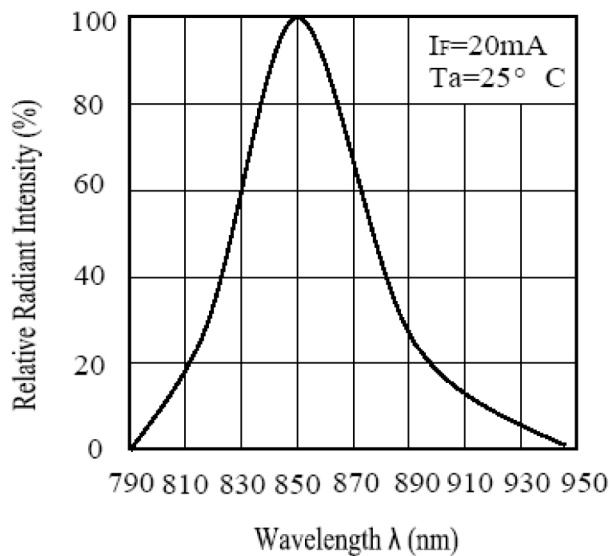
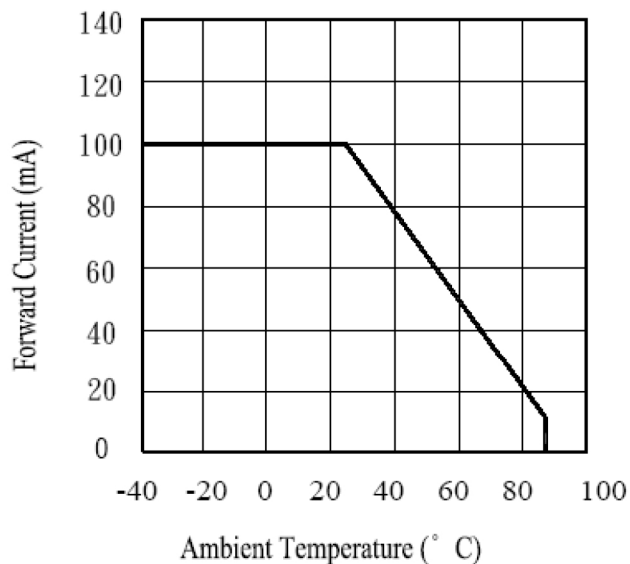
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Radiant intensity	E_e	10	---	40	mW/Sr	IF=20mA(Note1)
Viewing Angle	$2\theta_{1/2}$	---	30	---	Deg	(Note 2)
Peak Emission Wavelength	λ_p	---	850	---	nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$	---	45	---	nm	IF=20mA
Forward Voltage	V_F	1.2	---	1.5	V	IF=20mA
Reverse Current	I_R	---	---	10	μA	VR=5V

Note:

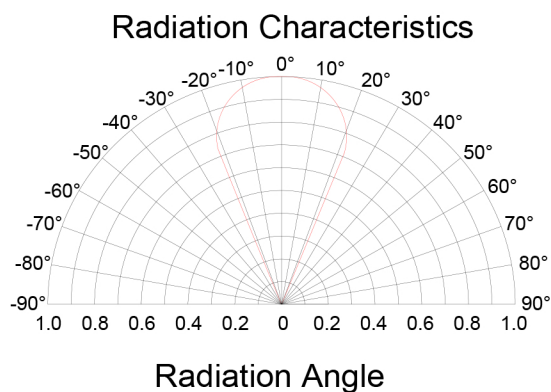
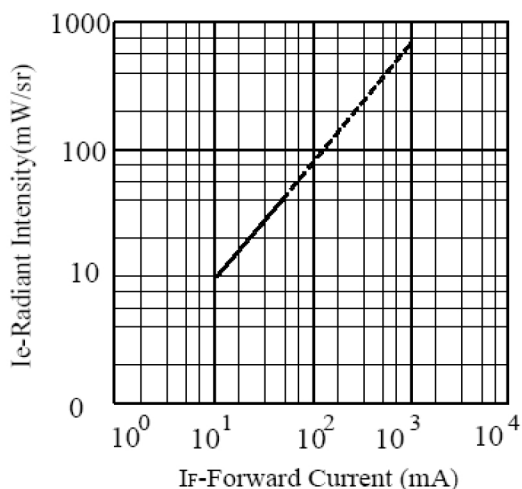
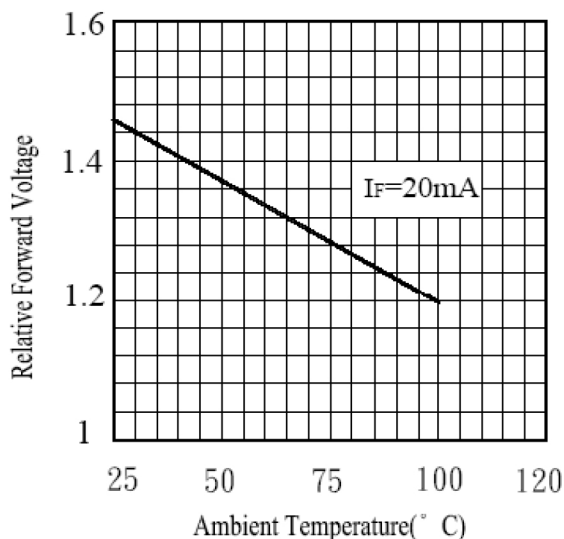
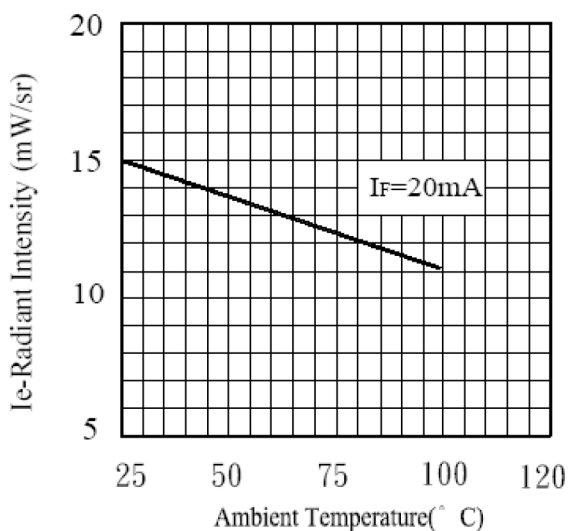
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

TECHNOLOGY DATA SHEET & SPECIFICATIONS

Typical Electro-Optical Characteristics Curves



TECHNOLOGY DATA SHEET & SPECIFICATIONS



Notes

1. Above specification may be changed without notice. Hyled will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Hyled assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of Hyled corporation. Please don't reproduce or cause anyone to reproduce them without Hyled's consent.