660nm Parallel Light Emitting Diode

1. GENERAL DESCRIPTION

T46-660-H5 is serials of LEDs designed for optical encoder,with precision optical design.

2. FEATURES

● TO-46K can type with glass lens.

● Peak wavelength 660nm.

● Parallel light emitting.

● High reliability.

3. APPLICATION

● Optical encoder.

● Optical switches

● Grating scale.

● Factory application.

4. ABSOLUTE MAXIMUM RATINGS AT Ta=25℃

| ITEM	SYMBOL	MAXIMUM RATING	UNIT
Power Dissipation	P_D	150	mW
forward current	I_F	60	mA
Reverse voltage	V_R	5	V
Operating temperature range	$T_{opr.}$	-30 to +100	℃
Storage temperature range	$T_{stg.}$	-40 to +125	℃
soldering temperature（see Note 1）	$T_{sol.}$	260	℃

Note1:For MAX. 5 seconds at the position of 2mm from the resin edge.

## 5. ELECTRIO-OPTICAL CHARACTERISTICS AT Ta=25℃

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Forward Voltage	V_F	1.85	2.0	2.4	V	L_F=20mA
Reverse Current	I_R			10	μA	V_R=5V
Radiant Intensity	Po		6.9		mW	L_F=20mA
Peak Wavelength	λp		660		nm	L_F=20mA
Spectral Width	Δλ		±10		nm	L_F=20mA
Beam Diameter	ϕ_B		5		mm	L=3mm
Half Angle	Δθ	-	±9	-	deg.	-

6. TYPICAL ELECTRICAL/OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

Forward I-V Curve
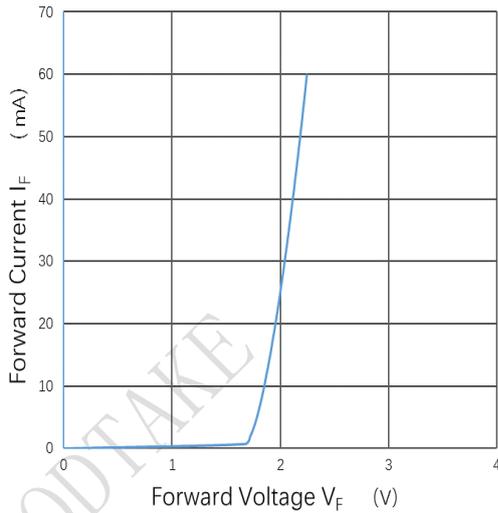
Spectrum
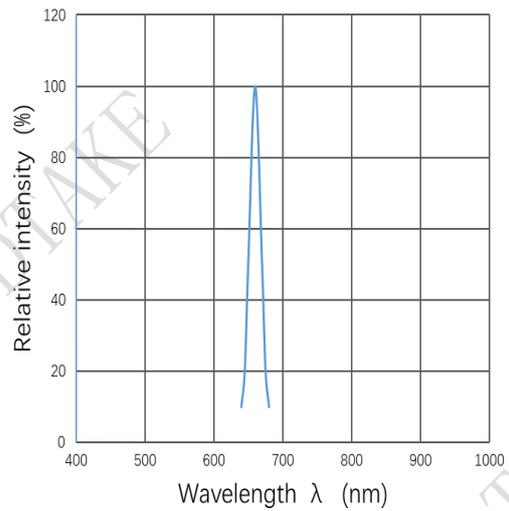
Radiant intensity by distance
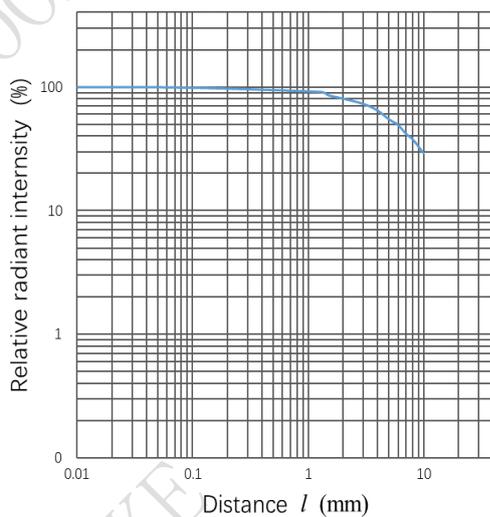
Radiation Pattern
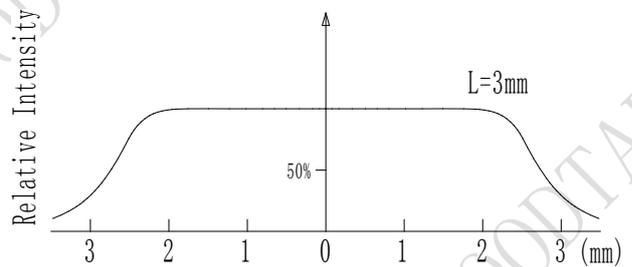
7. DIMENSIONS IN MM
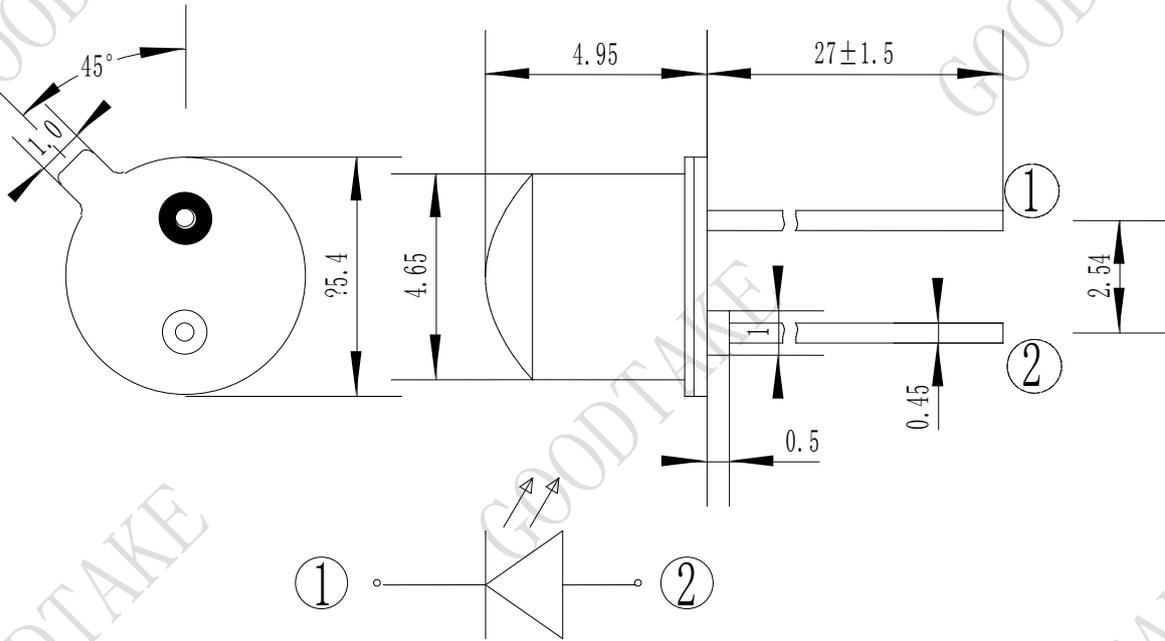
Notes

1. All dimensions are in millimeters.

2. Tolerance is ±0.2 unless otherwise noted.

8.Storage

Do not open the sealed moisture-proof bag before ready to use.
Storage in controlled environment of temperature =40℃ or below, with maximum humidity <90%.

9. Manual Soldering

Use only temperature-controlled soldering station with 25 watt iron or less, maximum tip temperature always below 350℃. By putting the solder tip so it touches both the PCB board pad (applied with solder) and the device's terminal pin, finish soldering within 3 seconds each time, leave two seconds and more intervals before doing another soldering. Be careful the iron tip should not touch the device package body to avoid damage.