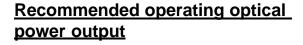


650 nm LASER DIODE

Features

- "Visible wavelength: 650 nm (typ.)
- " Optical power: 5 mW (CW)
- "TO-18 package with flat window (ø 5.6 mm)
- "Low operating current: lop = 33 mA (typ.)
- "Low operating voltage: Vop = 2.8 V (max)



" Less than 5 m W



Applications

- " Laser pointers
- " Laser modules
- " Bar code readers

Structure

Index-guided structure
AIGaInP quantum well structure
Integrated Si photodiode for optical power monitor

Description

The MCE-6E8F-Z02 is a red laser diode typically powered at 3 to 5 mW and designed for laser pointer.

The device contains a PIN photo diode to meet the designs of the automatic-power-control circuit. The small TO-18 package and lower consumption enable customers to easily incorporate our laser diodes into their products.

Handling and Safety Precautions

Anti-static protection, such as ionized air blowers or grounded wrist straps with a 1 mega series resistor, should be used at all times when handling laser diodes. In addition, soldering irons should be well grounded.

Overheating caused by soldering of the leads of a laser diode must be prevented. Recommend soldering iron temperature and maximum exposure time are below 260 °C and 10 seconds.

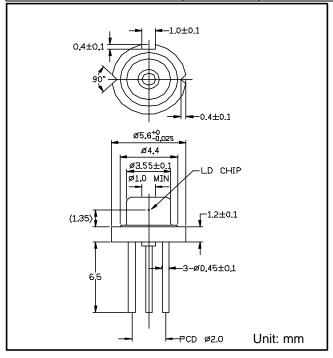


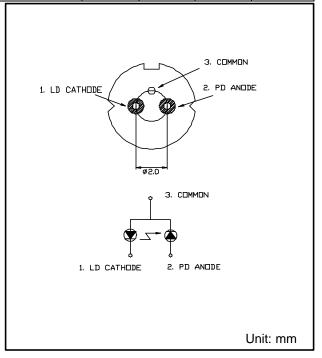
■ Absolute Maximum Ratings (Ta: 25°C)

PARAMETERS	SYMBOL	Rated Value -20 to +85		
Storage Temperature	Tstg			
Operating Temperature	Тор	-10 to + 40		
Optical output power (m W)	Po	7		
LD reverse voltage (V)	Vr (LD)	2		
PD reverse voltage (V)	Vr (PD)	30		

■ Optical & Electrical Characteristics (Ta = 25°C)

Parameter	r	Symbol	Test Conditions	Min.	Тур.	Max.	Unit
Optical outp	out power	Ро	Kink free,CW	3/4	3/4	5	mW
Threshold c	urrent	lth		3/4	24	35	mA
Operating c	ureent	lop	Po=5mW	3/4	33	40	mA
Operatign v	oltage	Vop	Po=5mW	3/4	2.2	2.8	V
Wavelength		l p	Po=5mW	3/4	650	660	nm
Beam	Perpendicular	q^	Po=5mW	3/4	29	3/4	deg
divergence	Parallel	q//	Po=5mW	3/4	8	3/4	deg
Slope efficie	ency	h	2mW [lr(5mW)-lr(3mW)]	3/4	0.6	3/4	mW/mA
Monitor cur	rent	lm	Po=5mW, Vr=5V	3/4	350	3/4	ìΑ





Package Dimensions

Pin Connections (Bottom View)

NOTE: Specifications are subjected to change without notice.