

Features :

- Wavelength: 638nm
- High optical output power : 1.2 W CW, 1.5 W Pulse
- Single emitter, Multi transverse mode
- $\phi 9$ mm CAN Package
- Suitable for Laser Projector , Show laser

Schedules: WS: Dec/'15 MP: Oct/'16



CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

Red LD : HL63283HD Specifications (1)

Under Development

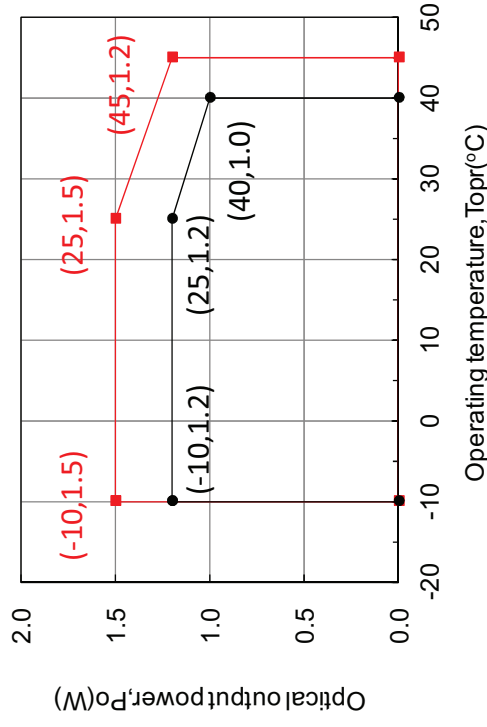
Absolute Maximum Ratings (Tc=25°C)

Items	Symbols	Unit	Ratings	Note
Optical output power	Po	W	1.2	CW, Note 2
Pulse optical output power	Po(Pulse)	W	1.5	Pulse frequency $\geq 50\text{Hz}$, duty $\leq 33\%$, Note 2
LD reverse voltage	VR(LD)	V	2	
Operating temperature	To _{pr}	°C	-10 to 40	Note 1, Note 2
Pulse Operating temperature	To _{pr} (Pulse)	°C	-10 to 45	Note 1, Note 2
Storage temperature	Tstg	°C	-40 to 85	

Note1) Operating temperature "To_{pr}" is defined by Case temperature "Tc".

Note2) Relation of Optical output power Po and Operating temperature To_{pr}.

- To_{pr} vs Po (CW)
- To_{pr} vs Po(Pulse) (Pulse frequency $\geq 50\text{Hz}$, duty $\leq 33\%$)



This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
 当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

Red LD : HL63283HD Specifications (2)

Under Development

Optical and Electrical Characteristics (Tc=25°C,CW)

Items	Symbols	Unit	HL63283HD			Test conditions	Note
			Min.	Ave.	Max.		
Threshold current	I _{th}	mA	-	300	-	-	
Operating current	I _{op}	mA	-	1500	-	Po=1.2W	
Operating voltage	V _{op}	V	-	2.4	-	Po=1.2W	
Lasing wavelength	λ _p	nm	-	638	-	Po=1.2W	
Beam Divergence	parallel	°	-	10	-	Po=1.2W, FWHM	
	Perpendicular	°	-	35	-	Po=1.2W, FWHM	

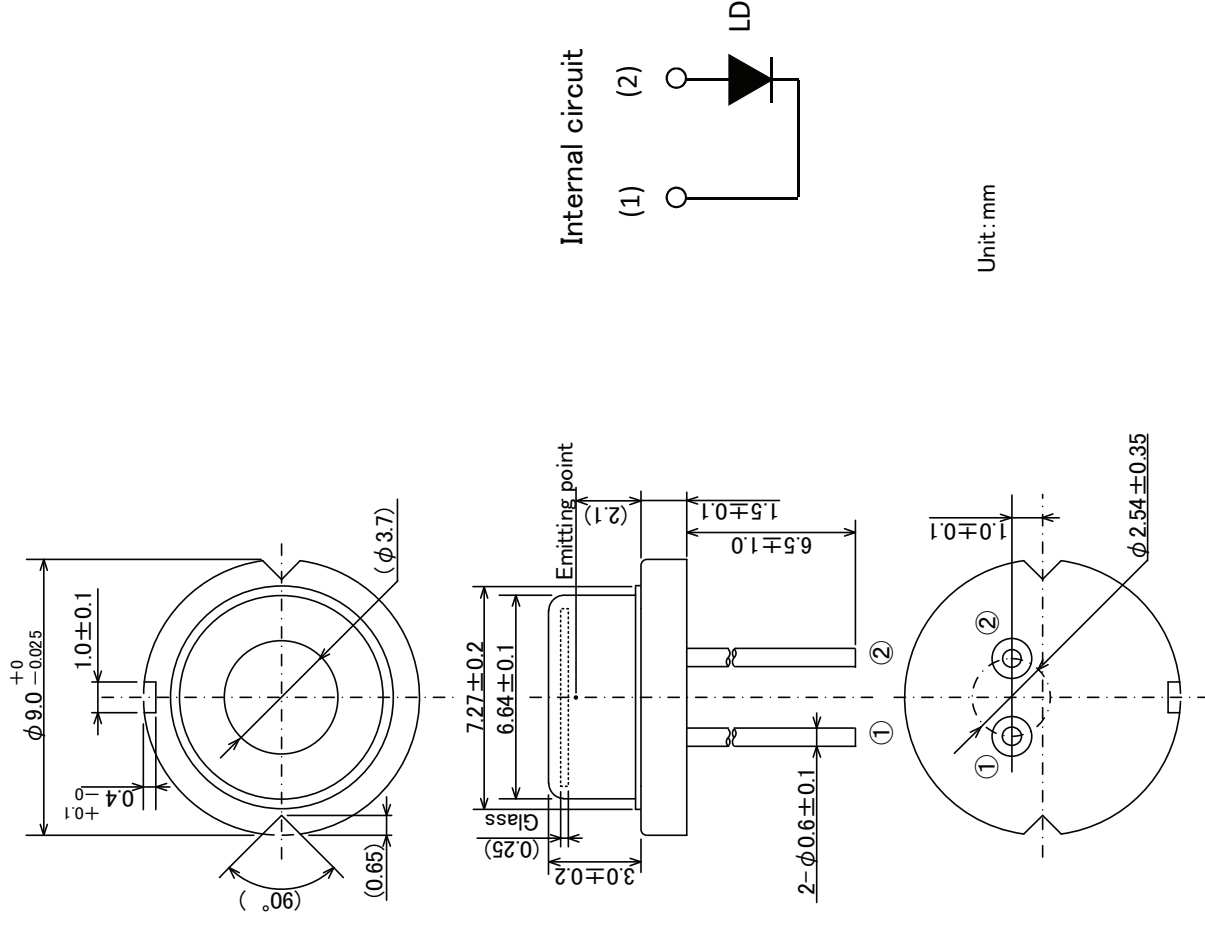
This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
 当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

Red LD : HL63283HD Outline and Internal Circuit

Under Development



This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

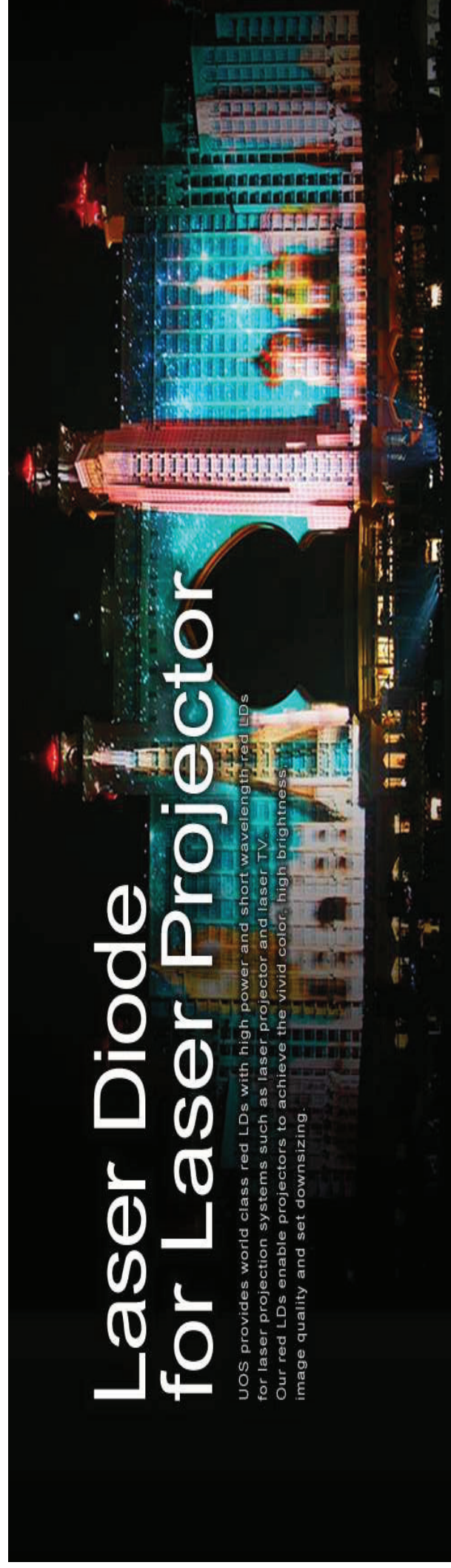
Red LD : HL63290HD

Under Development

Features :

- Wavelength:638nm
- High optical output power : 2 W CW, 2.5 W Pulse
- Multi emitters and Multi transverse mode
- $\phi 9$ mm CAN Package
- Suitable for Laser Projector and Show laser

Schedules: WS: Dec/'15 MP: Oct/'16



Red LD : HL63290HD Specifications (1) Under Development

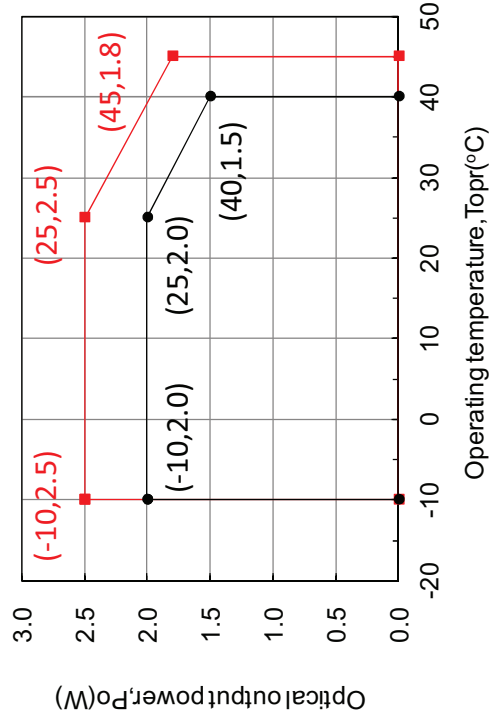
Absolute Maximum Ratings (Tc=25°C)

Items	Symbols	Unit	Ratings	Note
Optical output power	Po	W	2	CW, Note 2
Pulse optical output power	Po(Pulse)	W	2.5	Pulse frequency $\geq 50\text{Hz}$, duty $\leq 33\%$, Note 2
LD reverse voltage	VR(LD)	V	2	
Operating temperature	Topr	°C	-10 to 40	Note 1, Note 2
Pulse Operating temperature	Topr(Pulse)	°C	-10 to 45	Note 1, Note 2
Storage temperature	Tstg	°C	-40 to 85	

Note1) Operating temperature “Topr” is defined by Case temperature “Tc”.

Note2) Relation of Optical output power Po and Operating temperature Topr.

- Topr vs Po (CW)
- Topr vs Po(Pulse) (Pulse frequency $\geq 50\text{Hz}$, duty $\leq 33\%$)



This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
 当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

Red LD : HL63290HD Specifications (2) Under Development

Optical and Electrical Characteristics (Tc=25°C,CW)

Items	Symbols	Unit	HL63290HD			Test conditions	Note
			Min.	Ave.	Max.		
Threshold current	I _{th}	mA	-	500	-	-	
Operating current	I _{op}	mA	-	2500	-	P _o =2W	
Operating voltage	V _{op}	V	-	2.4	-	P _o =2W	
Lasing wavelength	λ _p	nm	-	638	-	P _o =2W	
Beam Divergence	parallel	°	-	10	-	P _o =2W, FWHM	
	Perpendicular	°	-	35	-	P _o =2W, FWHM	

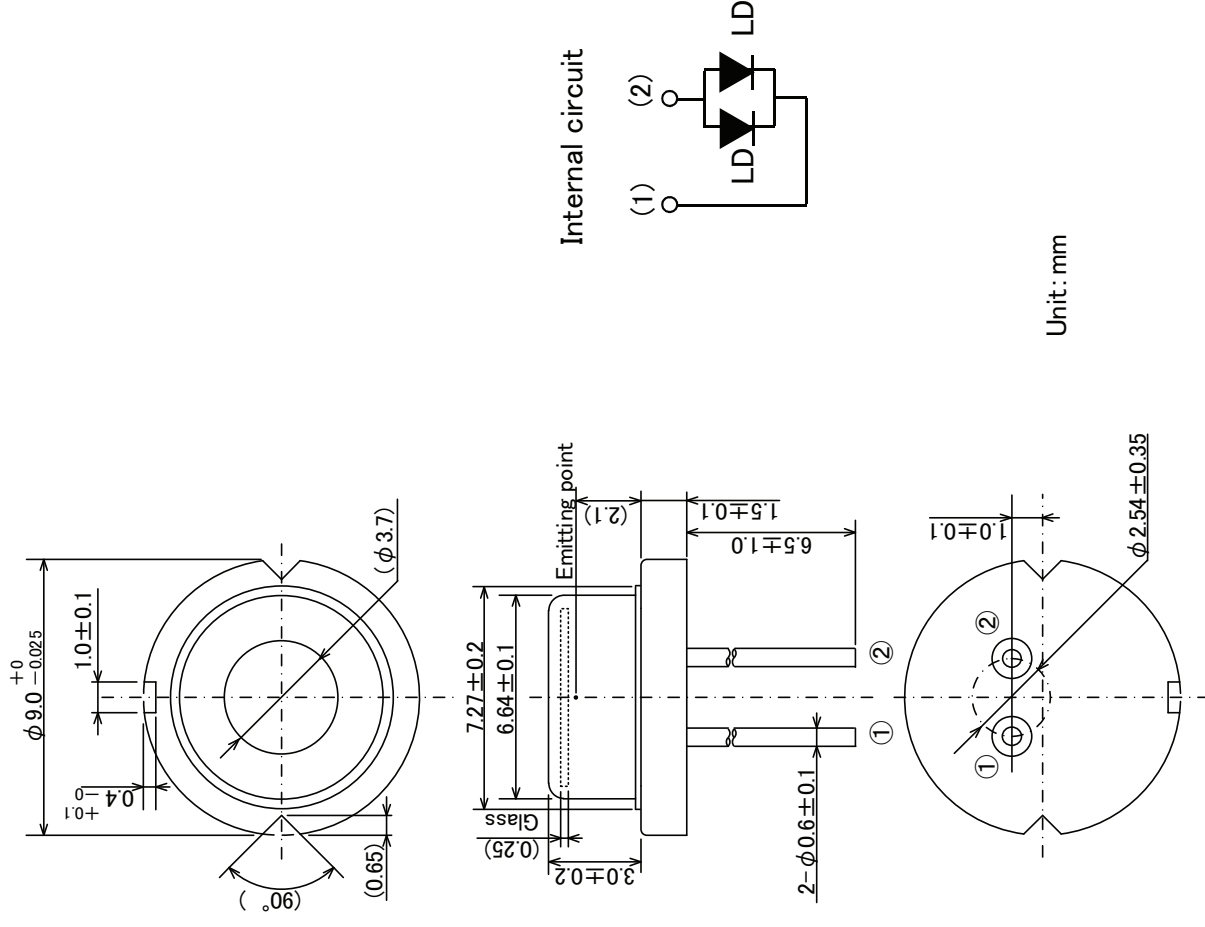
This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
 当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。

Red LD : HL63290HD Outline and Internal Circuit

Under Development



This is a preliminary target specification. The specification may be changed without any notice.

CONFIDENTIAL

© Copyright 2015 Ushio Group. All Rights Reserved.
当社の事前承諾なく、本資料に掲載されている文書や画像等を複製・転載等することを禁じます。