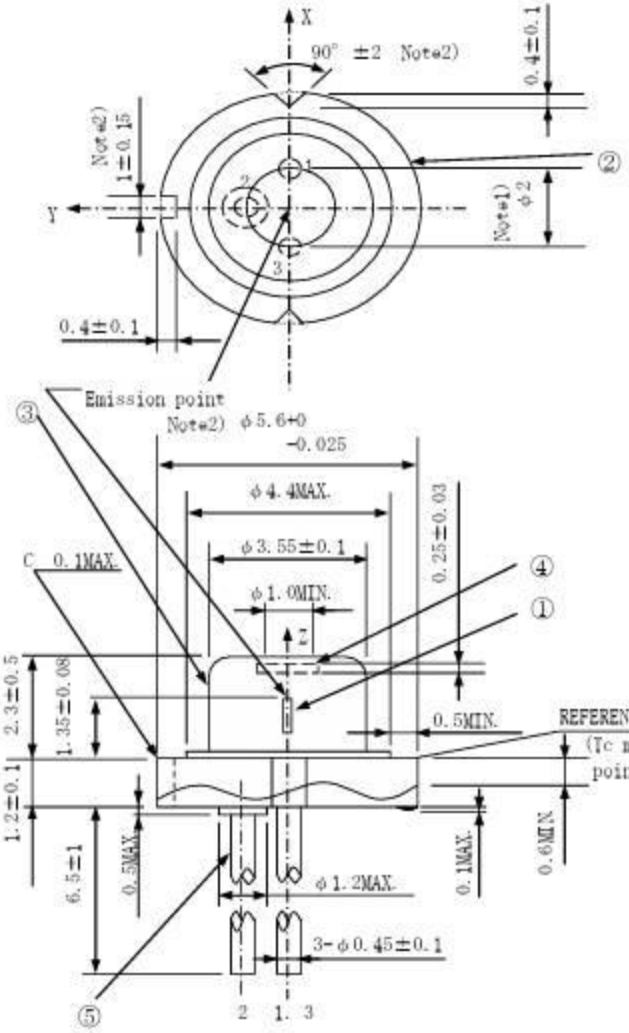
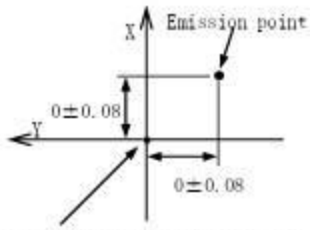
2. Outline dimensions and Terminal connections

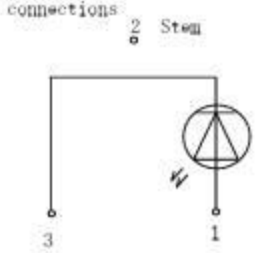


Enlarged drawing around the emission point



Center of the imaginary circle which goes through the three point around the stem

Terminal connections



Mass of the product : 0.3g (reference value)

Marking

This model has 3 way marking type.

Type. 1

Position : Side of a cap

Printed contents : □□ □□

Type. 2

Position : Top or side of a cap

Printed contents : SB63□□□□□

Type. 3

Position : Side of a cap

Printed contents : □□□□□□

□ : Production lot

Note 1) Dimension of the bottom of leads.

Note 2) These dimensions are valid only in the range of 0 ~ 0.6mm below from the reference plane.

GENERAL TOLERANCES ±0.2

UNIT:mm

No.	Component	Material	Finish
①	Laser Diode Chip	InAlGaN	-
②	Stem	Fe	Gold-plated
③	Cap	alloy of Fe and Ni	Nickel+Pd plated or Nickel plated
④	Window glass	Borosilicated glass	-
⑤	Lead pins	Kovar	Gold-plated

3. Ratings and Characteristics

3-1 Absolute Maximum Ratings (Tc=25℃(Note 1))

Parameter	Symbol	Value	Unit
Optical power output (CW)	Po	55	mW
Reverse voltage	Vrl	2	V
Operating temperature (Case temperature)	Top(c)	-10 ～ +60	℃
Storage temperature	Tstg	-40 ～ +85	℃
Soldering temperature (Note 2)	Tsld	350	℃

(Note 1) Tc : Case temperature (Tc measurement point is refer to P2 drawing.)
(Note 2) Soldering temperature means soldering iron tip temperature while soldering.
Soldering position is 1.6mm apart from bottom edge of the case. (Immersion time: ≦3s)

3-2 Electro-optical Characteristics (Tc=25℃(Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Threshold current	Ith	-	-	12	25	mA
Operating current	Iop	Po=50mW	-	42	75	mA
Operating voltage	Vop		-	5.5	6.5	V
Wavelength	λp		440	450	460	nm
Half Intensity Angle(Parallel) (Note 2,3)	θ //		4	8	11	°
Half Intensity Angle(Perpendicular) (Note 2,3)	θ ⊥		19	24	29	°
Ripple (Note 3,4)	R12		-	-	30	%
Misalignment angle (Parallel) (Note 3)	Δ θ //		-5	0	5	°
Misalignment angle (Perpendicular) (Note 3)	Δ θ ⊥		-5	0	5	°

(Note 1) Initial value, Continuous Wave Operation
(Note 2) Angle of 50% peak intensity (Full angle at half-maximum)
(Note 3) Parallel to the junction plane(X-Z plane)
Perpendicular to the junction plane(Y-Z plane)
(Note 4) R12=ΔP/P
ΔP: the maximum deviation of the far field pattern from its approximate curve
P: the peak of the approximate curve
・Approximate curve is calculated from the measuring data within the center area at 40% peak value.
・ΔP is calculated on the area within the center area at 25% peak value.