

SHARP

For Your Creative Product

LASER Diode

Line up



April 2025



LASER Diode Lineup

Precautions regarding laser

[Click](#)

Output / Wavelength deployment

[Click](#) on your desired wavelength band.

Package deployment

[Click](#) on your preferred package.

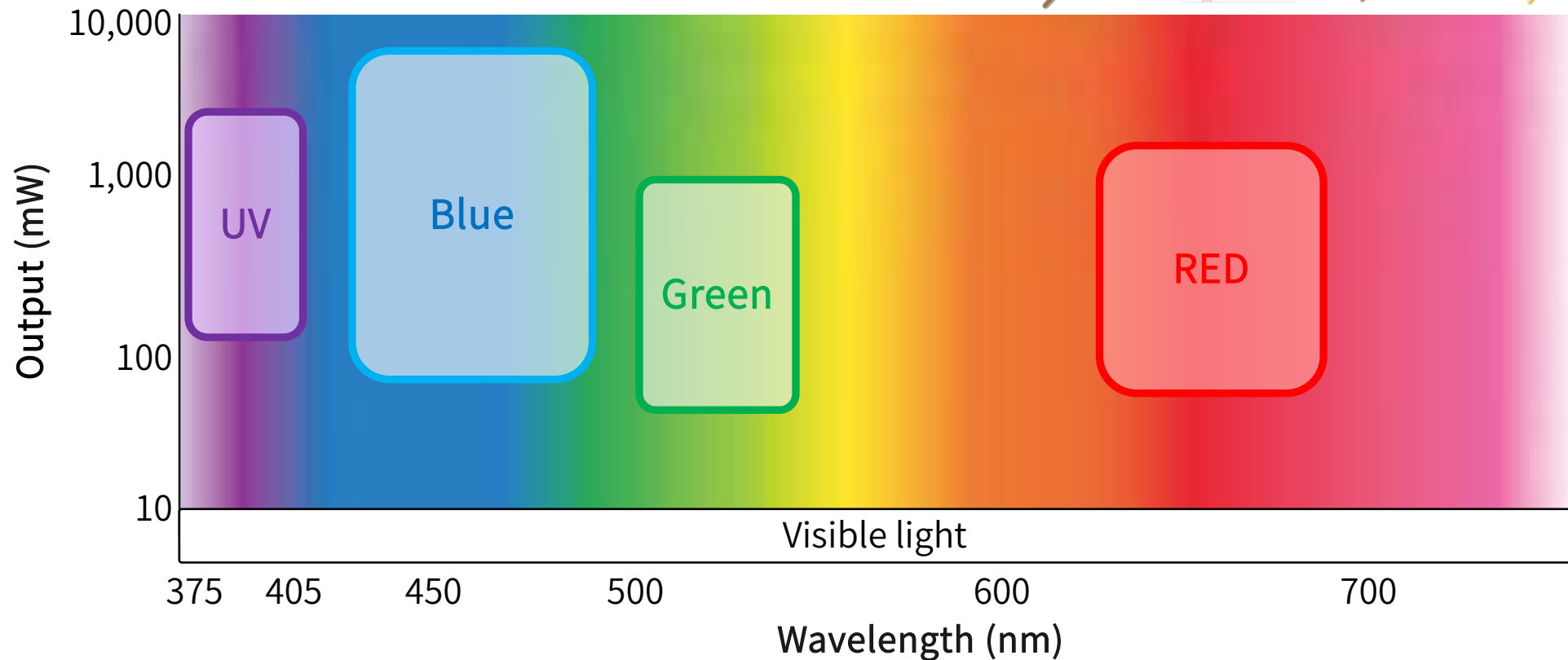
[Φ 9.0 CAN](#)

[Φ 5.6 CAN](#)

[Φ 3.8 CAN](#)

[Φ 3.3 CAN](#)

[T1.8mm Frame](#)



Lineup by Wavelength





○ New product ● Under development

Model name [mode] *4			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating*1			Package (mm)	Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW /mA)	(Peak) λp (nm)	Emitter width (μm)	FFP			Po (mW)	Iop (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)						
GH0382AA2G	MM	PDF	380	200	200	325	4.4	-	380	7	15	36	*3	210	-	0 to +30	φ5.6	-
GH0393AA2G	MM	PDF	395	300	150	310	4.4	1.8	395	7	13	44	*3	350	-	0 to +30	φ5.6	-
GH0401FA2G	SM	PDF	405	150	40	130	5.0	1.7	405	1.25	9	19	*2	155	-	-10 to +75	φ5.6	-
GH04V01A2GC	MM	PDF	405	1000	150	650	5.0	2.0	405	10	16	40	*3	1100	-	0 to +30	φ5.6	-
GH04V03Z9G	MM	PDF	405	3000	450	1800	4.0	2.0	405	30	8	40	*3	-	2000	0 to +30	φ9.0	-

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.
*2 Overall width angle at 1/2 of peak intensity
*3 Overall width angle at 1/e2 of peak intensity
*4 MM: Multimode, SM: Single mode
※ Please contact us for combinations of packages and characteristics other than the above.

SHARP Blue Laser Diode



Contact



○ New product ● Under development

Model name [mode] ^{*4}			Wavelength λ _p (nm)	Characteristics (T _c =25°C)										Absolute maximum rating ^{*1}			Package (mm)	Monitor PD (Built-in:○)
				P _o (mW)	I _{th} (mA)	I _{op} (mA)	V _{op} (V)	η _d (mW /mA)	(Peak) λ _p (nm)	Emitter width (μm)	FFP			P _o (mW)	I _{op} (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)						
GH04I01A2G	MM	PDF	425	1 500	120	850	4.2	-	425	15	8	47	*3	1 600	-	0 to +30	φ5.6	-
GH04C06W9G	MM	PDF	435	6 000	300	3 000	4.2	2.0	430	45	7	45	*3	-	3 300	*5(0) to +60	φ9.0	-
GH04C07W9G	MM	PDF	435	7 000	360	4 000	4.3	1.9	435	60	8	47	*3	-	4 200	*5(0) to +60	φ9.0	-
GH04550A2G	SM	PDF	450	50	22	60	4.8	1.3	450	1.25	8	24	*2	55	-	10 to +60	φ5.6	-
GH04580A2G	SM	PDF	450	80	22	84	5.1	1.3	450	1.25	10	24	*2	85	-	-10 to +70	φ5.6	-
GH04C01C2G	MM	PDF	450	1 000	100	680	4.3	1.7	450	15	10	45	*3	1 100		-10 to +25	φ5.6	
GH04C01B2G	MM	PDF	450	1 800	110	1 100	4.1	1.8	450	15	7	26	*2	2 000	-	-10 to +50	φ5.6	-
GH04C03Z9G	MM	PDF	450	3 500	260	2 100	4.4	1.9	450	30	9	47	*3	-	2 800	0 to +60	φ9.0	-
GH04C05U9G	MM	PDF	450	5 000	300	2 950	4.1	1.8	450	45	9	46	*3	-	3 200	0 to +60	φ9.0	-
GH04850B2G	SM	PDF	487	50	40	105	6.0	0.8	487	1.55	8	23	*2	55	-	-10 to +60	φ5.6	-

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*3 Overall width angle at 1/e2 of peak intensity

※ Please contact us for combinations of packages and characteristics other than the above.

*2 Overall width angle at 1/2 of peak intensity

*4 MM: Multimode, SM: Single mode.

*5 Please contact us.

Sharp Fukuyama Laser Co., Ltd. 5

○ New product ● Under development



Model name [mode] ^{*4}			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating ^{*1}			Package (mm)	Monitor PD (Built-in:○)	
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW /mA)	(Peak) λp (nm)	Emitter width (μm)	FFP		Po (mW)	Iop (mA)	Top (°C)				
											θ// (°)	θ⊥ (°)							
●	GH05230H1G	SM	PDF	518	30	25	75	6.2	0.6	518	1.8	7.5	22	*2	35	-	-10 to +60	φ5.6	-
	GH05210H2KC	SM	PDF	520	10	25	35	5.8	0.7	520	1.8	7	22	*2	15	-	-10 to +60	φ5.6	○
	GH05210H5K	SM	PDF	520	10	25	35	5.8	0.7	520	1.8	7	22	*2	15	-	-10 to +70	φ3.8	○
	GH05230H2KC	SM	PDF	520	30	25	70	6.5	0.7	520	1.8	7	22	*2	35	-	-10 to +60	φ5.6	○
	GH05250F2K	SM	PDF	520	50	40	100	5.9	0.7	520	1.85	7	22	*2	55	-	-10 to +60	φ5.6	○
	GH05280E2KC	SM	PDF	520	80	50	150	6.5	0.8	520	1.85	7	23	*2	85	-	-10 to +60	φ5.6	○
●	GH05280E5K	SM	PDF	520	80	65	180	6.5	0.7	520	1.85	7	23	*2	85	-	-10 to +60	φ3.8	○
	GH0521DE2G	SM	PDF	520	130	70	270	6.7	0.7	520	1.8	8	22	*2	135	-	-10 to +60	φ5.6	-
	GH0523AD2G	MM	PDF	520	300	100	500	5.2	0.8	520	15	7	23	*2	-	850	0 to +60	φ5.6	-
●	GH05C01A9G	MM	PDF	520	600	180	840	4.4	0.9	520	15	9	44	*3	-	-	0 to +60	φ9.0	
●	GH05C01D9G	MM	PDF	525	1300	250	1400	4.3	1.1	525	15	8	42	*3	-	-	0 to +60	φ9.0	-

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions. *2 Overall width angle at 1/2 of peak intensity

*3 Overall width angle at 1/e² of peak intensity *4 MM: Multimode, SM: Single mode

※ Please contact us for combinations of packages and characteristics other than the above.

SHARP Red Laser Diode



Contact



○ New product ● Under development

Model name [mode] *4			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating*1			Package (mm)	Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW /mA)	(Peak) λp (nm)	Emitter width (μm)	FFP			Po (mW)	Iop (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)						
GH0637AA2G	MM	PDF	638	700	110	810	2.5	1.0	638	-	16	35	*2	702	-	-10 to +30	φ5.6	-
GH0631IB2GC	SM	PDF	639	180	55	215	2.7	1.2	639	-	8	15	*2	185	-	-10 to +60	φ5.6	-
GH06510F4AK	SM	PDF	660	7	17	26	2.2	0.9	660	-	13	28	*2	10	-	-10 to +70	φ3.3	○
GH06610A2KC	SM	PDF	660	10	15	24	2.2	1.1	660	-	12	33	*2	12	-	-40 to +90	φ5.6	○
GH06P25A2CC	SM	PDF	660	95	40	122	2.4	1.1	660	-	10	15.5	*2	100	-	-10 to +70	φ5.6	-
GH16P32B8C	SM	PDF	661	90	42	120	2.3	1.2	661	-	9.3	15	*2	100	-	-10 to +70	t1.8	-

*1

The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2

Overall width angle at 1/2 of peak intensity

*3

Overall width angle at 1/e² of peak intensity

*4

MM: Multimode, SM: Single mode

※

Please contact us for combinations of packages and characteristics other than the above.

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SHARP 2 Wavelength Laser Diode



Contact



○ New product ● Under development

Model name [mode] *4			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating*1			Package (mm)	Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW /mA)	(Peak) λp (nm)	Emitter width (μm)	FFP		Po (mW)	Iop (mA)	Top (°C)			
											θ// (°)	θ⊥ (°)						
GH33235A8CN (Two-Wavelength)	SM	PDF	661	90	50	134	2.4	1.1	661	-	8-11.5	13.5-19	*2	90	-	-10 to +85	t1.8	-
			785	150	53	215	2.4	0.9	785		7-10.5	13-18		160				
GH33540D8C5 (Two-Wavelength)	SM	PDF	661	120	68	189	2.5	1.0	661	-	8.5-11.5	14-19	*2	125	-	-10 to +80	t1.8	-
			785	150	55	230	2.4	0.9	785		7-10.5	13-18		200				

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions. *2 Overall width angle at 1/2 of peak intensity

*3 Overall width angle at 1/e² of peak intensity *4 MM: Multimode, SM: Single mode

※ Please contact us for combinations of packages and characteristics other than the above.

Lineup by Package

Three horizontal lines in red, green, and blue, stacked vertically and slightly offset to the right, serving as a decorative element under the title.

SHARP

Laser Diode



φ9.0mm TO-CAN Package

Contact



New product

Under development

Model name [mode] *4			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating*1			Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW/ mA)	(Peak) λp (nm)	Emitter width (μm)	FFP		Po (mW)	Iop (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)					
GH04V03Z9G	MM	PDF	405	3 000	450	1 800	4.0	2.0	405	30	8	40	*3	-	2 000	0 to +30	-
GH04C06W9G	MM	PDF	435	6 000	300	3 000	4.2	2.0	430	47	7	45	*3	-	3 300	0 to +60	-
GH04C07W9G	MM	PDF	435	7 000	360	4 000	4.3	1.9	435	60	8	47	*3	-	4 200	0 to +60	-
GH04C03Z9G	MM	PDF	450	3 500	260	2 100	4.4	1.9	450	30	9	47	*3	-	2 800	0 to +60	-
GH04C05U9G	MM	PDF	450	5 000	300	2 950	4.1	1.8	450	47	9	46	*3	-	3 200	0 to +60	-
GH05C01A9G	MM	PDF	520	600	180	840	4.4	0.9	520	15	9	44	*3	-	-	0 to +60	-
GH05C01D9G	MM	PDF	525	1 300	250	1 400	4.3	1.1	525	15	8	42	*3	-	-	0 to +60	-

*1

The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2

Overall width angle at 1/2 of peak intensity

*3

Overall width angle at 1/e2 of peak intensity

*4

MM: Multimode, SM: Single mode

※

Please contact us for combinations of packages and characteristics other than the above.

SHARP Laser Diode



φ5.6mm TO-CAN Package

[Contact](#)



● New product ● Under development

Model name [mode] ^{*4}			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating ^{*1}			Monitor PD (Built in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW/ mA)	(Peak) λp (nm)	Emitter width (μm)	FFP			Po (mW)	Iop (mA)	Top (°C)	
											θ// (°)	θ⊥ (°)					
● GH0382AA2G	MM	PDF	380	200	200	325	4.4	-	380	7	15	36	*3	210	-	0 to +30	-
GH0393AA2G	MM	PDF	395	300	150	310	4.4	1.8	395	7	13	44	*3	350	-	0 to +30	-
GH0401FA2G	SM	PDF	405	150	40	130	5.0	1.7	405	1.25	9	19	*2	155	-	-10 to +75	-
GH04V01A2GC	MM	PDF	405	1000	150	650	5.0	2.0	405	10	16	40	*3	1100	-	0 to +30	-
● GH04I01A2G	MM	PDF	425	1500	120	850	4.2	-	425	15	8	47	*3	1600	-	0 to +30	-
● GH04550A2G	SM	PDF	450	50	22	60	4.8	1.3	450	1.25	8	24	*2	55	-	10 to +60	
GH04580A2G	SM	PDF	450	80	22	84	5.1	1.3	450	1.25	10	24	*2	85	-	-10 to +70	-
● GH04C01C2G	MM	PDF	450	1000	100	680	4.3	1.7	450	15	10	45	*3	1100		-10 to +25	-
GH04C01B2G	MM	PDF	450	1800	110	1100	4.1	1.8	450	15	7	26	*2	2000	-	-10 to +50	-
GH04850B2G	SM	PDF	487	50	40	105	6.0	0.8	487	1.55	8	23	*2	55	-	-10 to +60	-

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2 Overall width angle at 1/2 of peak intensity

*3 Overall width angle at 1/e² of peak intensity

*4 MM: Multimode, SM: Single mode

※ Please contact us for combinations of packages and characteristics other than the above.

SHARP Laser Diode



φ5.6mm TO-CAN Package

Contact



New product Under development

Model name [mode] ^{*4}			Wavelength λ _p (nm)	Characteristics (T _c =25°C)										Absolute maximum rating ^{*1}			Monitor PD (Built-in:○)
				Po (mW)	I _{th} (mA)	I _{op} (mA)	V _{op} (V)	η _d (mW/ mA)	(Peak) λ _p (nm)	Emitter width (μm)	FFP			Po (mW)	I _{op} (mA)	Top (°C)	
											θ _{//} (°)	θ _⊥ (°)					
GH05230H1G	SM	PDF	518	30	25	75	6.2	0.6	518	1.8	7.5	22	*2	35	-	-10 to +60	-
GH05210H2KC	SM	PDF	520	10	25	35	5.8	0.7	520	1.8	7	22	*2	15	-	-10 to +60	○
GH05230H2KC	SM	PDF	520	30	25	70	6.5	0.7	520	1.8	7	22	*2	35	-	-10 to +60	○
GH05250F2K	SM	PDF	520	50	40	100	5.9	0.7	520	1.85	7	22	*2	55	-	-10 to +60	○
GH05280E2KC	SM	PDF	520	80	50	150	6.5	0.8	520	1.85	7	23	*2	85	-	-10 to +60	○
GH0521DE2G	SM	PDF	520	130	70	270	6.7	0.7	520	1.8	8	22	*2	135	-	-10 to +60	-
GH0523AD2G	MM	PDF	520	300	100	500	5.2	0.8	520	15	7	23	*2	-	850	0 to +60	-
GH0637AA2G	MM	PDF	638	700	110	810	2.5	1.0	638	-	16	35	*2	702	-	-10 to +40	-
GH0631IB2GC	SM	PDF	639	180	55	215	2.7	1.2	639	-	8	15	*2	185	-	-10 to +60	-
GH06610A2KC	SM	PDF	660	10	15	24	2.2	1.1	660	-	12	33	*2	12	-	-40 to +90	○
GH06P25A2CC	SM	PDF	660	95	40	122	2.4	1.1	660	-	10	15.5	*2	100	-	-10 to +70	-

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2 Overall width angle at 1/2 of peak intensity

*3 Overall width angle at 1/e2 of peak intensity

*4 MM: Multimode, SM: Single mode

※ Please contact us for combinations of packages and characteristics other than the above.

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SHARP

Laser Diode



φ3.8mm TO-CAN Package

Contact



☐ New product

☒ Under development

Model name [mode] *4			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating*1			Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW/ mA)	(Peak) λp (nm)	Emitter width (μm)	FFP		Po (mW)	Iop (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)					
GH05210H5K	SM	PDF	520	10	25	35	5.8	0.7	520	1.8	7	22	*2	15	-	-10 to +70	○
GH05280E5K	SM	PDF	520	80	65	180	6.5	0.7	520	1.85	7	23	*2	85	-	-10 to +60	○

*1

The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2

Overall width angle at 1/2 of peak intensity

*3

Overall width angle at 1/e2 of peak intensity

*4

MM: Multimode, SM: Single mode

※

Please contact us for combinations of packages and characteristics other than the above.

SHARP

Laser Diode



φ3.3mm TO-CAN Package

Contact



☐ New product

☒ Under development

Model name [mode] ^{*4}			Wavelength λ _p (nm)	Characteristics (T _C =25°C)										Absolute maximum rating ^{*1}			Monitor PD (Built-in:○)
				Po (mW)	I _{th} (mA)	I _{op} (mA)	V _{op} (V)	η _d (mW/ mA)	(Peak) λ _p (nm)	Emitter width (μm)	FFP		Po (mW)	I _{op} (mA)	Top (°C)		
											θ// (°)	θ⊥ (°)					
GH06510F4AK	SM	PDF	660	7	17	26	2.2	0.9	660	-	13	28	*2	10	-	-10 to +70	○

*1

The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.

*2

Overall width angle at 1/2 of peak intensity

*3

Overall width angle at 1/e2 of peak intensity

*4

MM: Multimode, SM: Single mode

※

Please contact us for combinations of packages and characteristics other than the above.

SHARP Laser Diode



t1.8mm Frame

Contact



New product Under development

Model name [mode] ^{*4}			Wavelength λp (nm)	Characteristics (Tc=25°C)										Absolute maximum rating ^{*1}			Monitor PD (Built-in:○)
				Po (mW)	Ith (mA)	Iop (mA)	Vop (V)	ηd (mW/ mA)	(Peak) λp (nm)	Emitter width (μm)	FFP			Po (mW)	Iop (mA)	Top (°C)	
											θ// (°)	θ⊥ (°)					
GH16P32B8C	SM	PDF	661	90	42	120	2.3	1.2	661	-	9.3	15	*2	100	-	-10 to +70	-
GH33235A8CN (Two-Wavelength)	SM	PDF	661	90	50	134	2.4	1.1	661	-	8-11.5	13.5-19	*2	90	-	-10 to +85	-
			785	150	53	215	2.4	0.9	785		7-10.5	13-18		160			
GH33540D8C5 (Two-Wavelength)	SM	PDF	661	120	68	189	2.5	1.0	661	-	8.5-11.5	14-19	*2	125	-	-10 to +80	-
			785	150	55	230	2.4	0.9	785		7-10.5	13-18		200			

*1 The absolute maximum rating is a limit that must not be exceeded under any operating or test conditions.
*2 Overall width angle at 1/2 of peak intensity
*3 Overall width angle at 1/e2 of peak intensity
*4 MM: Multimode, SM: Single mode
※ Please contact us for combinations of packages and characteristics other than the above.



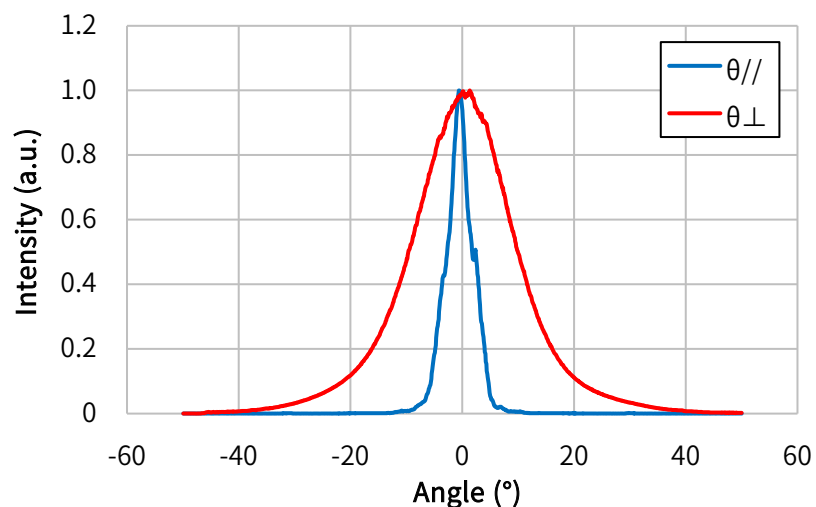
Characteristics

(Tc=25°C, CW)

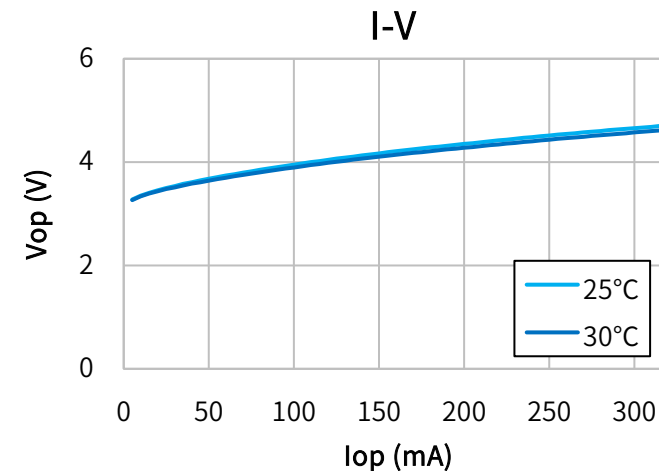
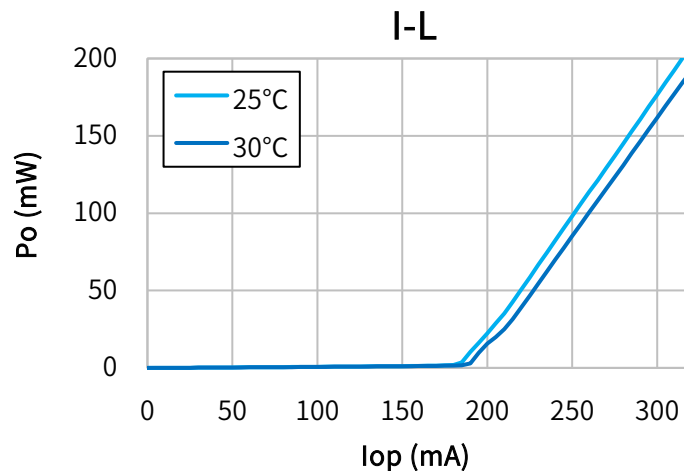
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=200mW	380nm
Output [Max]	—	200mW [210mW]
Threshold current	—	200mA
Operating current	Po=200mW	325mA
Operating voltage	Po=200mW	4.4V
Far Field (1/e ²)	Po=200mW	θ// 15°, θ⊥ 36°

Terminal connections	No.9
Package type	φ5.6

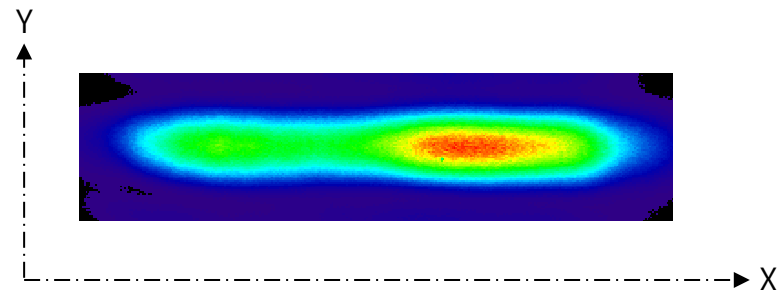
Far Field Pattern



CW I-L, I-V Temperature



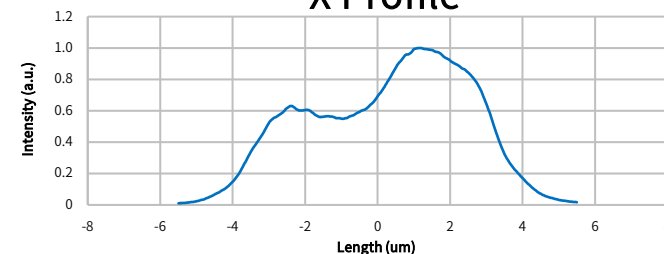
Near Field Pattern



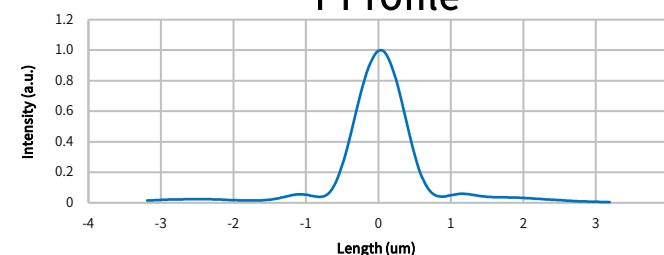
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	6.2	6.7	7.9
Y	0.7	0.9	1.2

X Profile



Y Profile





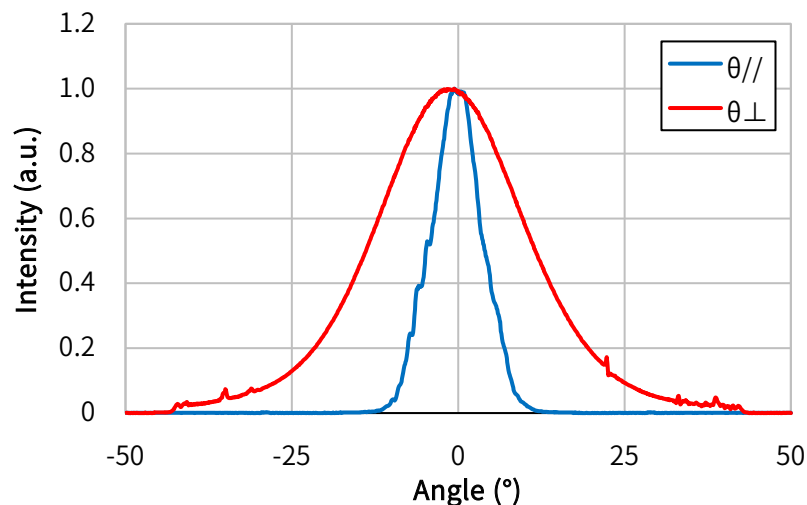
Characteristics

(T_c=25°C, CW)

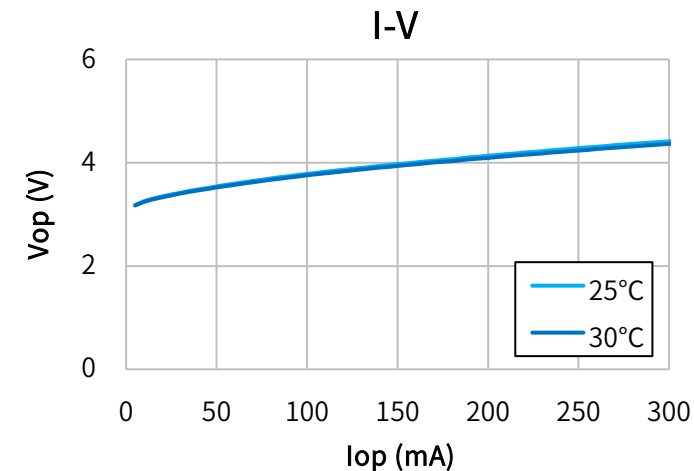
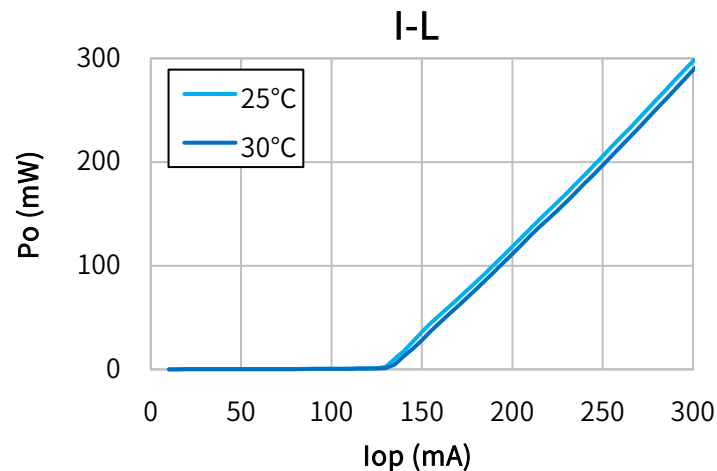
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=300mW	395nm
Output [Max]	—	300mW [350mW]
Threshold current	—	150mA
Operating current	Po=300mW	310mA
Operating voltage	Po=300mW	4.4V
Far Field (1/e ²)	Po=300mW	$\theta_{//}$ 13°, $\theta_{\perp}$ 44°

Terminal connections	No.9
Package type	$\phi 5.6$

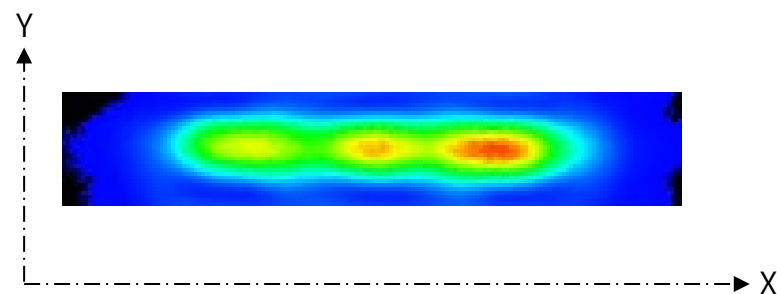
Far Field Pattern



CW I-L, I-V Temperature



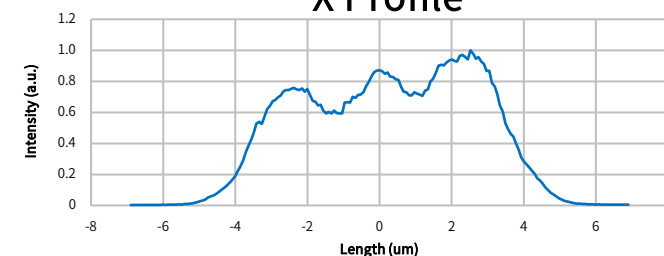
Near Field Pattern



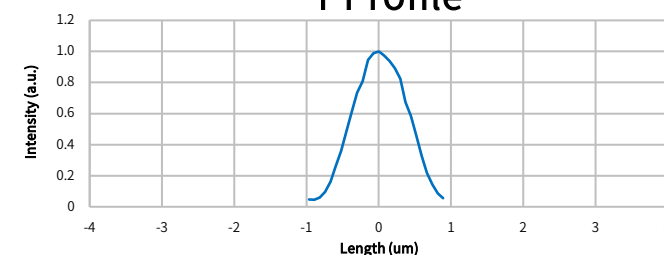
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	7.0	7.5	8.7
Y	0.9	1.1	1.5

X Profile



Y Profile





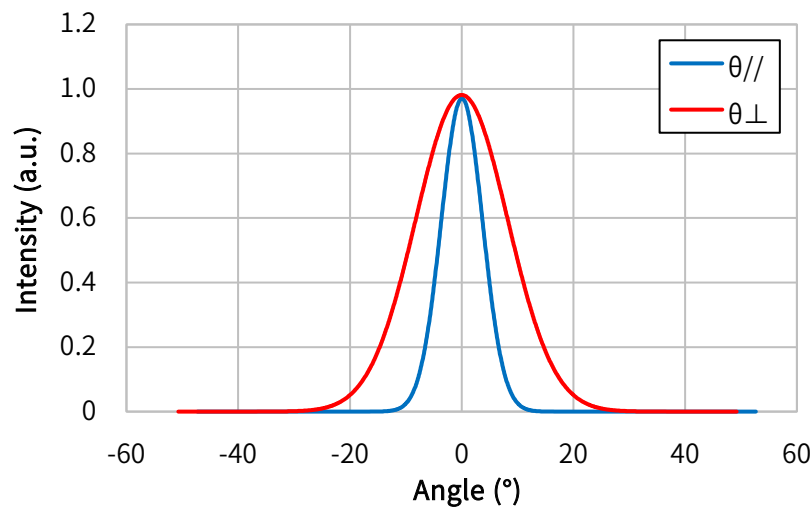
Characteristics

(T_c=25°C, CW)

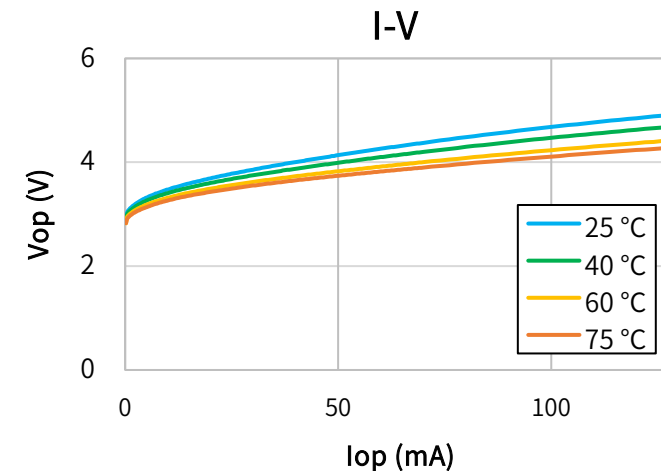
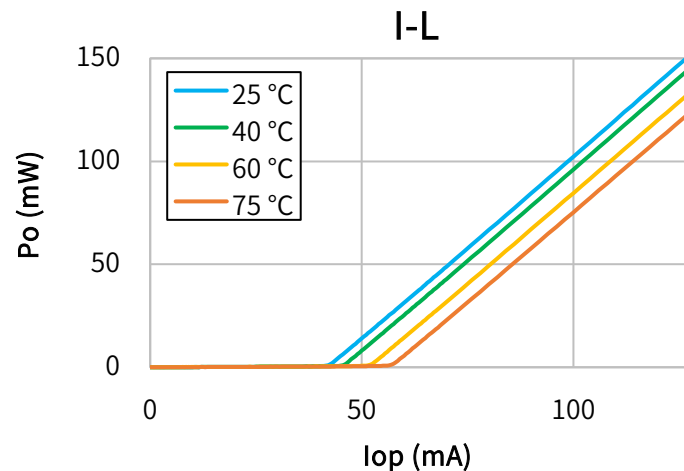
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=150mW	405nm
Output [Max]	—	150mW [155mW]
Threshold current	—	40mA
Operating current	Po=150mW	130mA
Operating voltage	Po=150mW	5.0V
Far Field (FWHM)	Po=150mW	$\theta_{//} 9^\circ, \theta_{\perp} 19^\circ$

Terminal connections	No.8
Package type	$\phi 5.6$

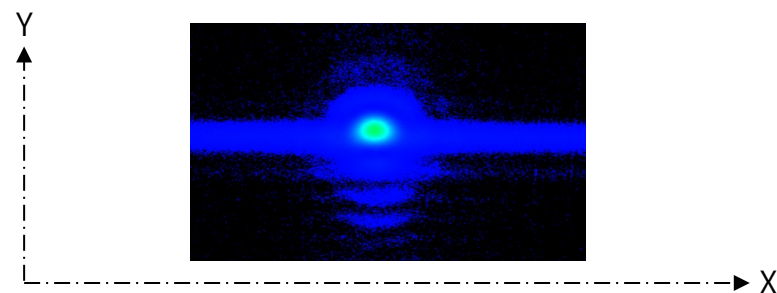
Far Field Pattern



CW I-L, I-V Temperature



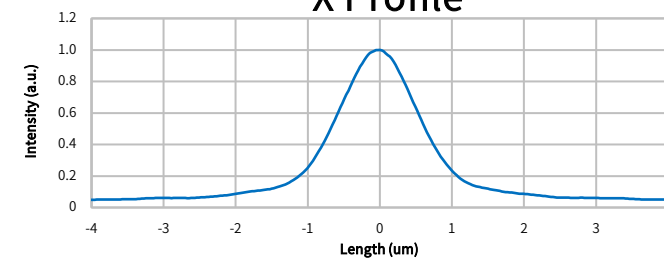
Near Field Pattern



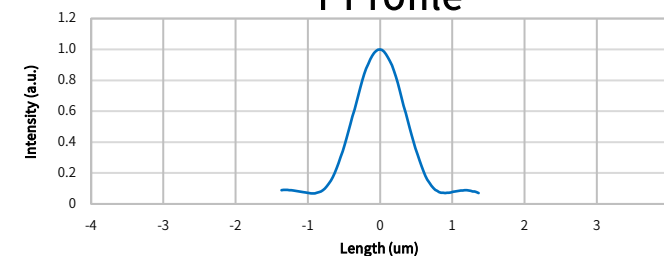
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.3	1.6	2.7
Y	0.8	1.0	1.4

X Profile



Y Profile



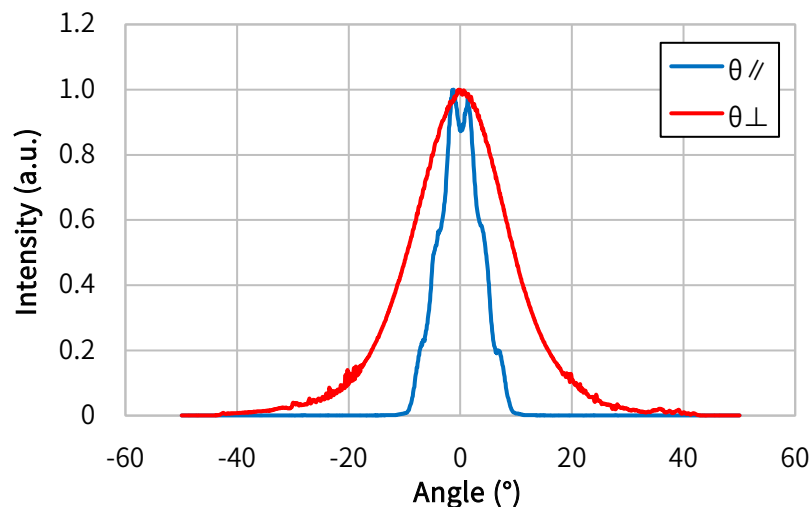


Characteristics

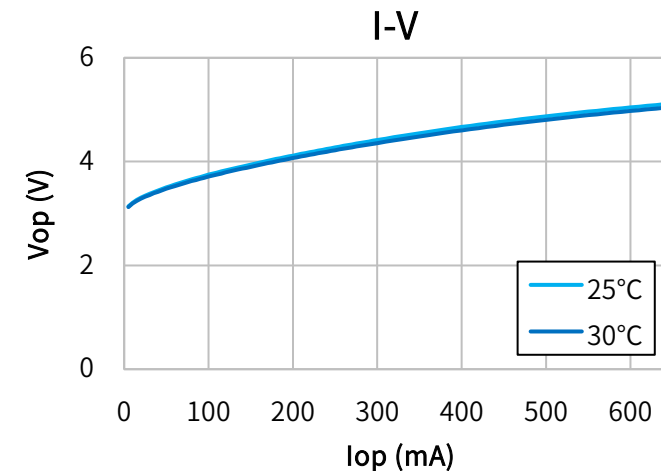
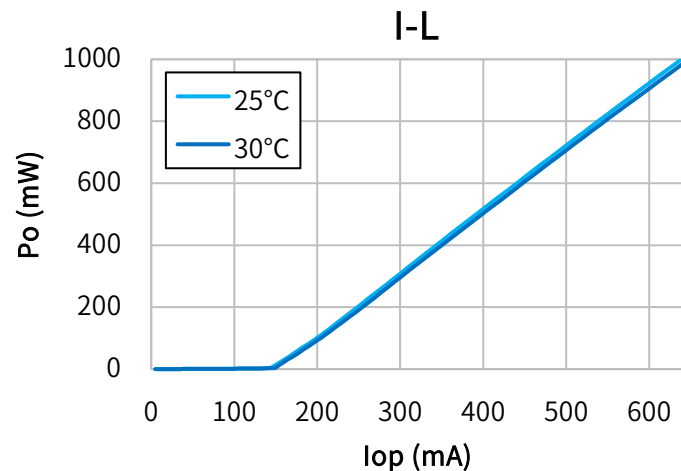
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=1000mW	405nm
Output [Max]	—	1000mW [1100mW]
Threshold current	—	150mA
Operating current	Po=1000mW	650mA
Operating voltage	Po=1000mW	5.0V
Far Field (1/e ²)	Po=1000mW	θ// 16°, θ⊥ 40°
Terminal connections	No.9	
Package type	φ5.6	

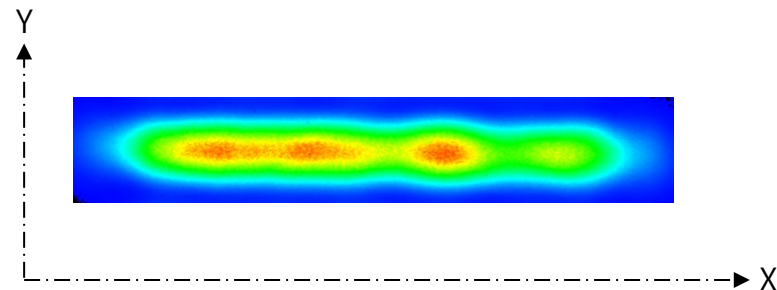
Far Field Pattern



CW I-L, I-V Temperature



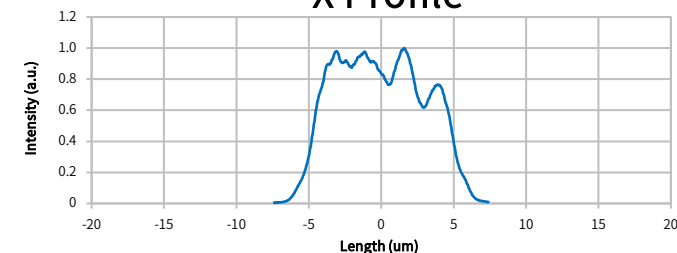
Near Field Pattern



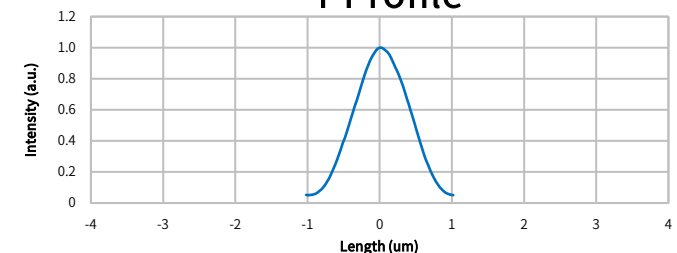
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	9.5	9.9	11.5
Y	0.9	1.1	1.5

X Profile



Y Profile



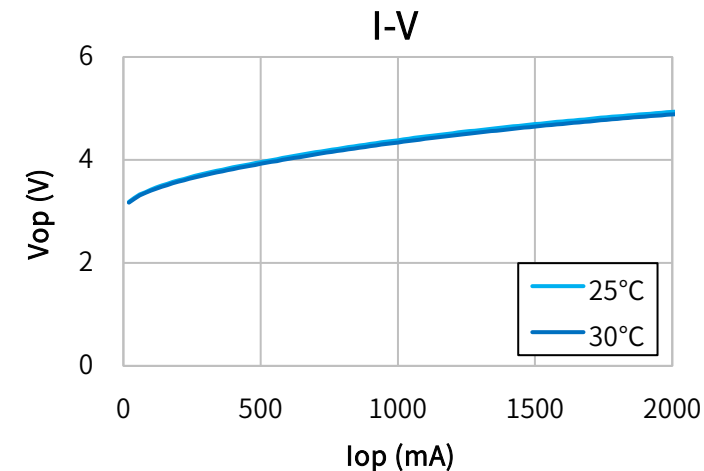
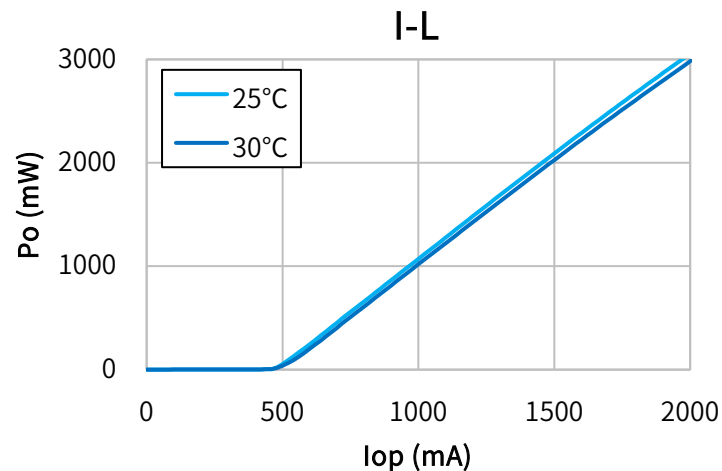


Characteristics

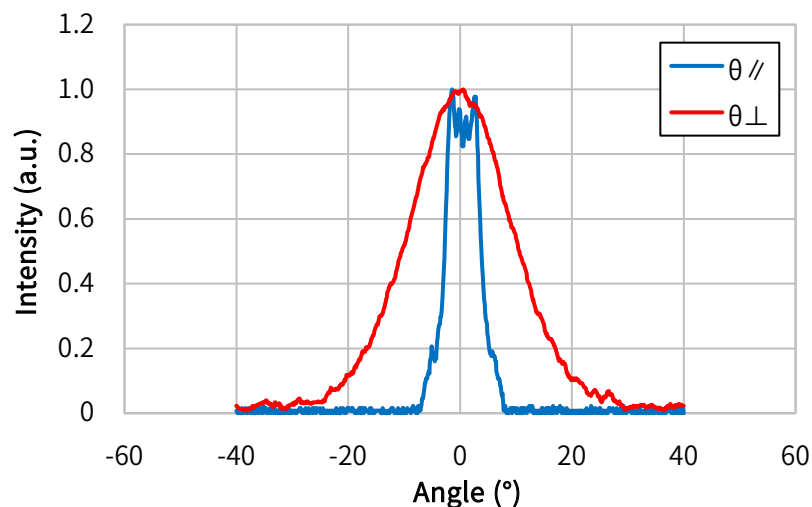
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=3000mW	405nm
Output	—	3000mW
Threshold current	—	450mA
Operating current	Po=3000mW	1800mA
Operating voltage	Po=3000mW	4.0V
Far Field (1/e ²)	Po=3000mW	$\theta_{//} 8^\circ, \theta_{\perp} 40^\circ$
Terminal connections	No.13	
Package type	$\phi 9.0$	

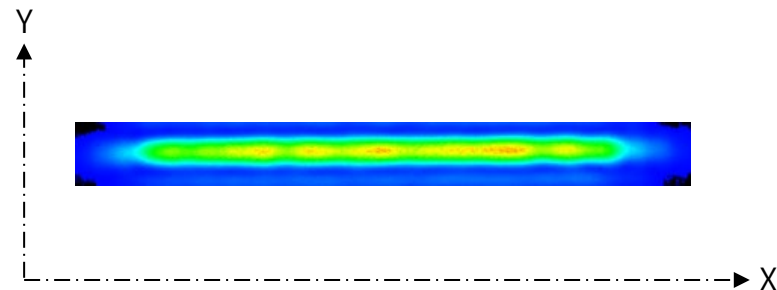
CW I-L, I-V Temperature



Far Field Pattern



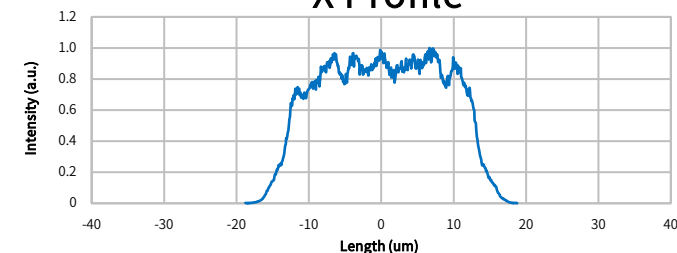
Near Field Pattern



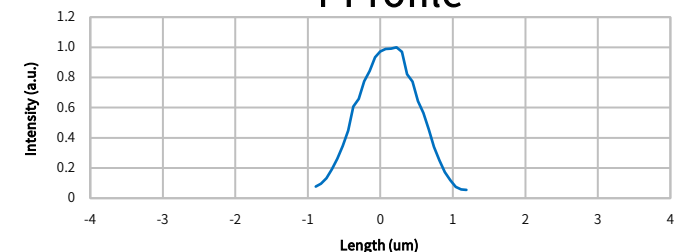
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	25.8	26.7	30.5
Y	1.1	1.2	1.7

X Profile



Y Profile



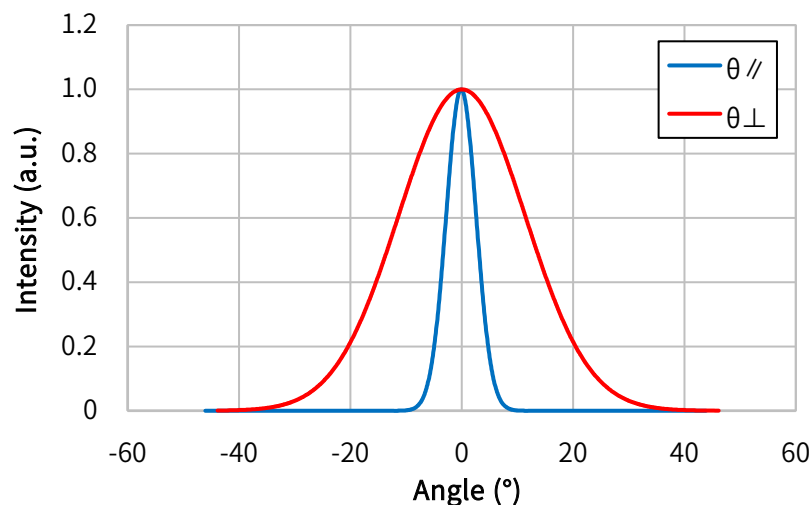


Characteristics

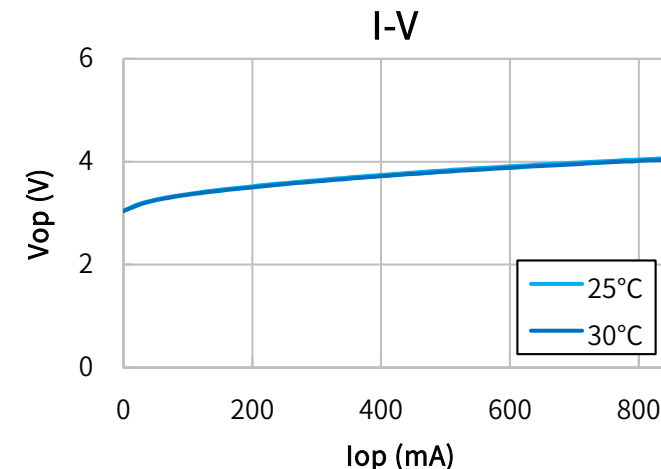
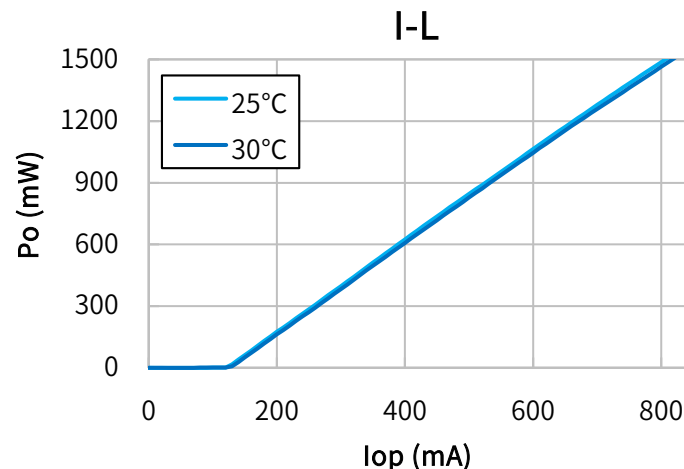
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=1500mW	425nm
Output [Max]	—	1500mW [1600mW]
Threshold current	—	120mA
Operating current	Po=1500mW	850mA
Operating voltage	Po=1500mW	4.2V
Far Field (1/e ²)	Po=1500mW	θ// 8°, θ⊥ 47°
Terminal connections	No.9	
Package type	φ5.6	

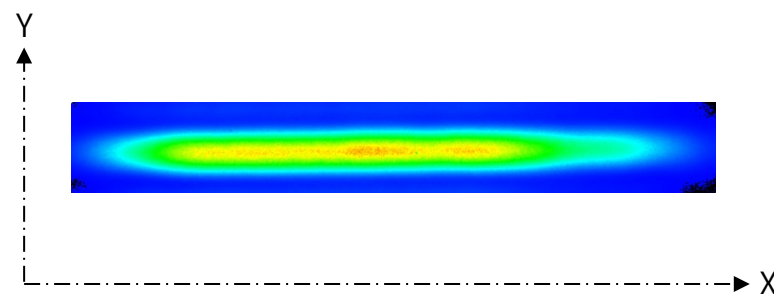
Far Field Pattern



CW I-L, I-V Temperature



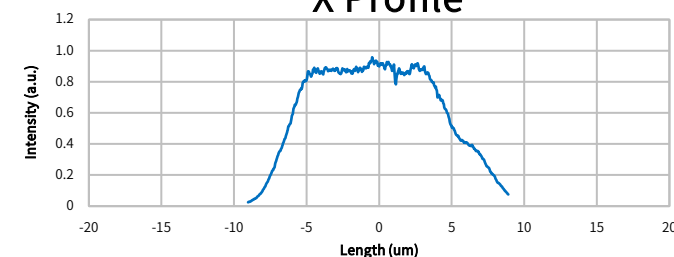
Near Field Pattern



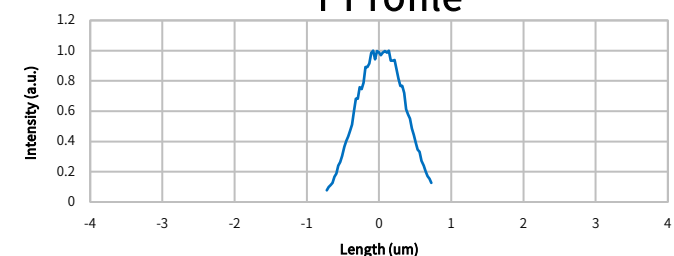
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	11.7	13.7	16.3
Y	0.8	1.0	1.4

X Profile



Y Profile



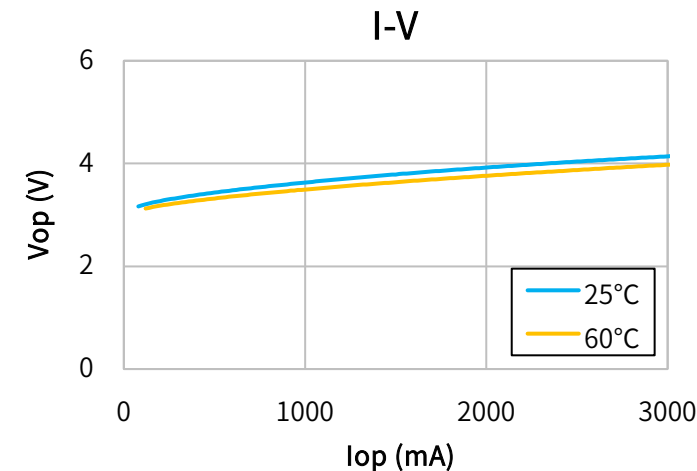
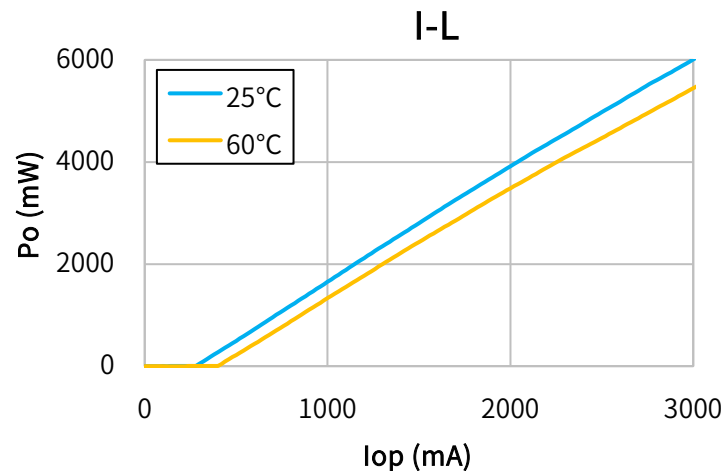


Characteristics

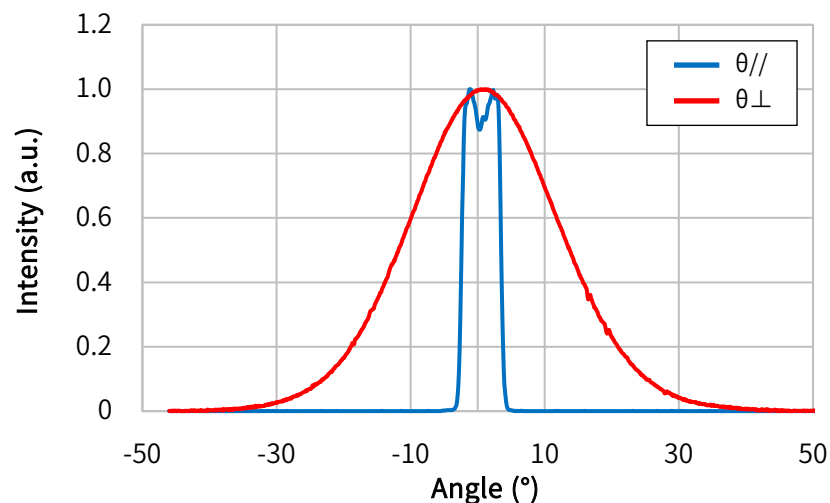
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=6000 mW	435nm
Output	—	6000mW
Threshold current	—	300mA
Operating current	Po=6000mW	3000mA
Operating voltage	Po=6000mW	4.2V
Far Field (1/e ²)	Po=6000mW	$\theta_{//}$ 7°, $\theta_{\perp}$ 45°
Terminal connections	No.13	
Package type	$\phi 9.0$	

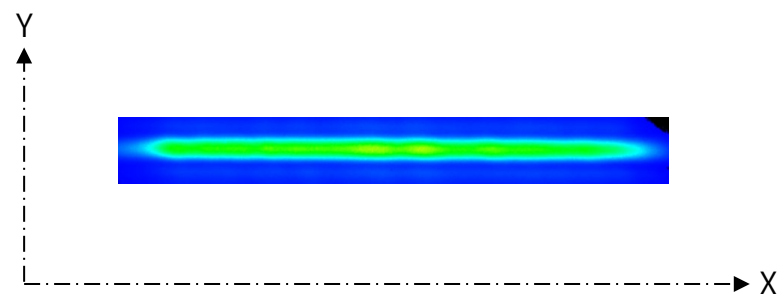
CW I-L, I-V Temperature



Far Field Pattern



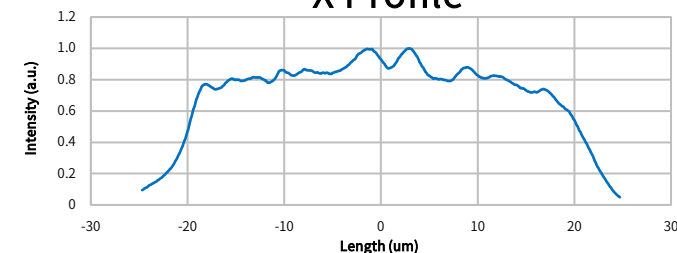
Near Field Pattern



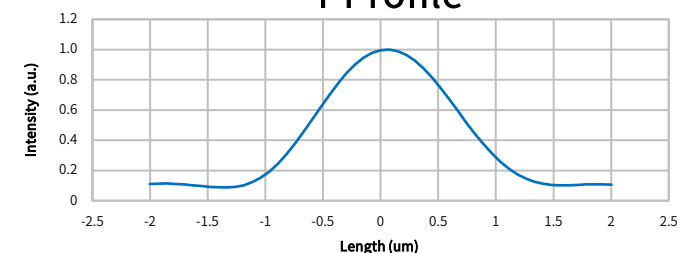
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	40.2	42.0	47.1
Y	1.4	1.6	1.7

X Profile



Y Profile



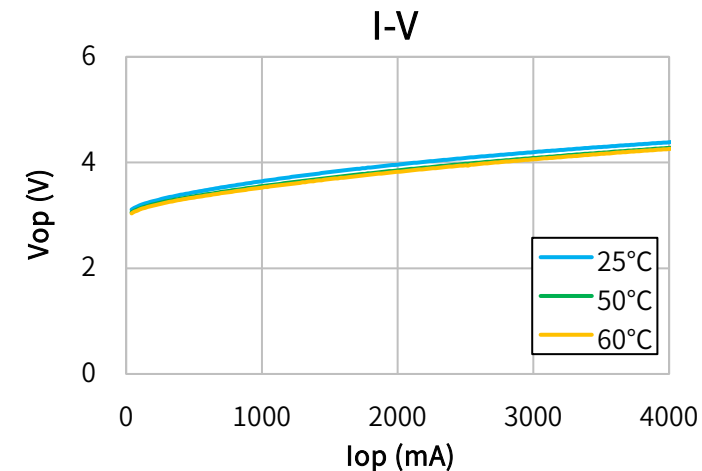
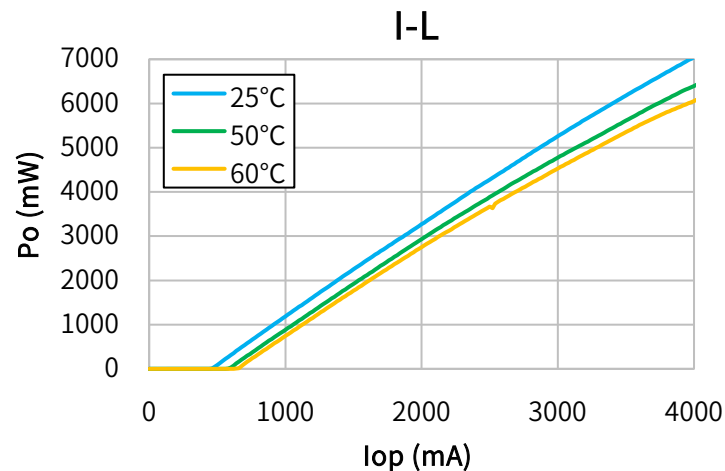


Characteristics

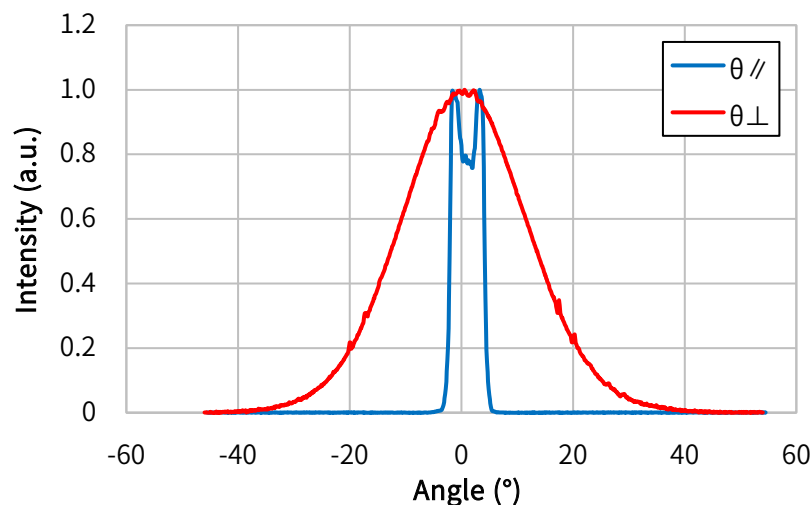
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=7000mW	435nm
Output	—	7000 mW
Threshold current	—	360mA
Operating current	Po=7000mW	4000mA
Operating voltage	Po=7000mW	4.3V
Far Field (1/e ²)	Po=7000mW	$\theta_{//} 8^\circ, \theta_{\perp} 47^\circ$
Terminal connections	No.13	
Package type	$\phi 9.0$	

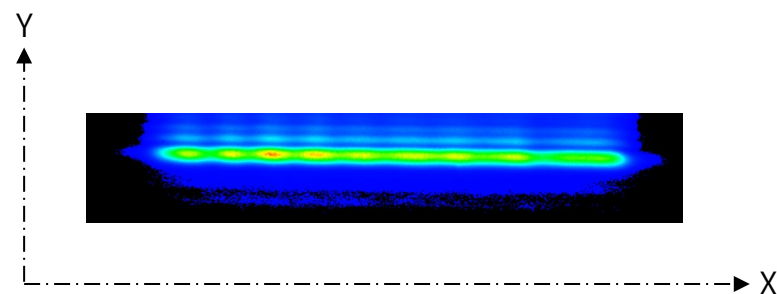
CW I-L, I-V Temperature



Far Field Pattern



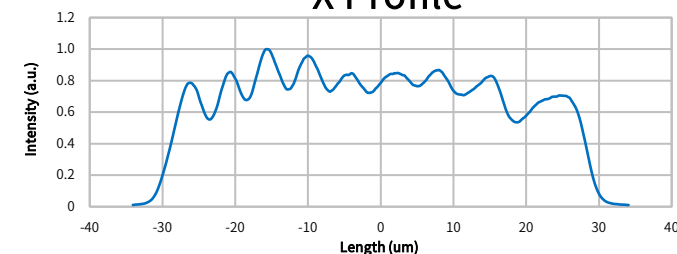
Near Field Pattern



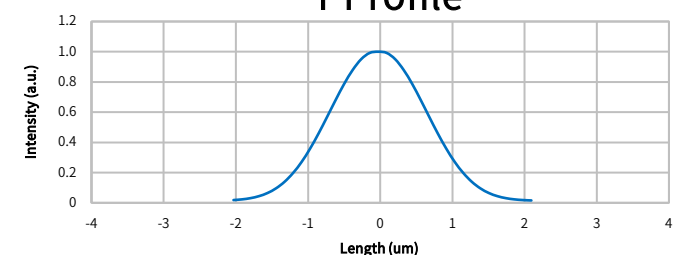
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	56.0	57.3	60.0
Y	1.42	1.70	2.59

X Profile



Y Profile



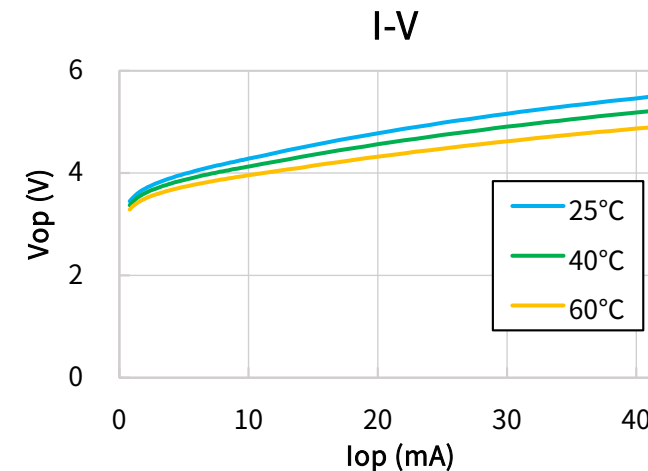
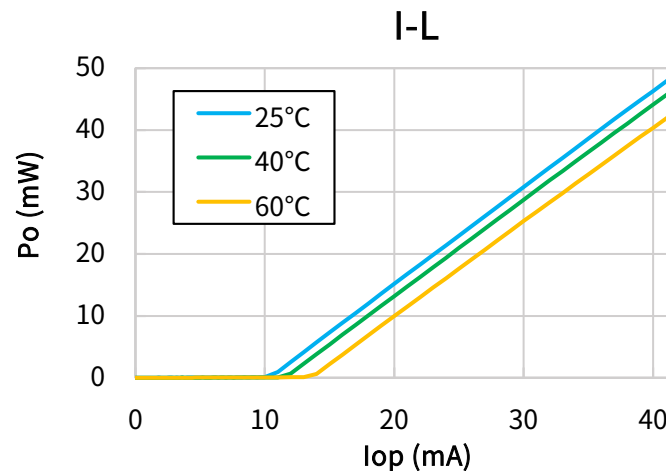


Characteristics

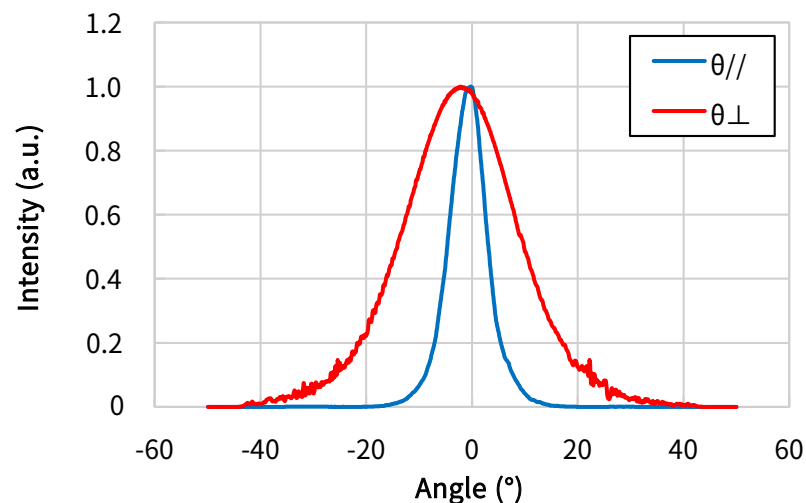
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=50mW	450nm
Output [Max]	—	50mW
Threshold current	—	12mA
Operating current	Po=50mW	42mA
Operating voltage	Po=50mW	5.5V
Far Field (FWHM)	Po=50mW	$\theta_{//}$ 8°, $\theta_{\perp}$ 24°
Terminal connections	No.8	
Package type	ϕ5.6	

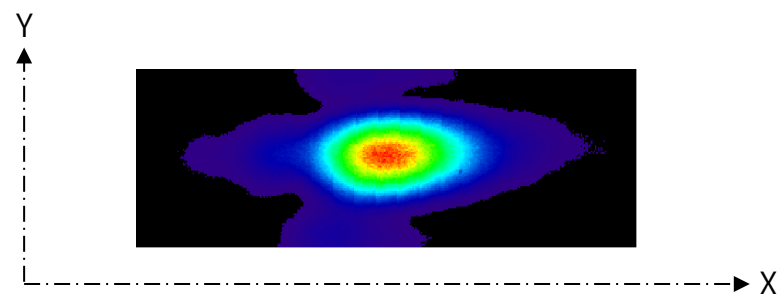
CW I-L, I-V Temperature



Far Field Pattern



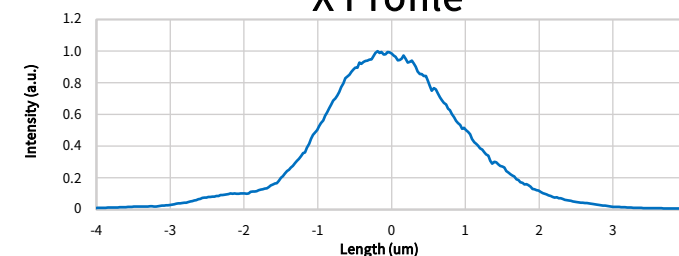
Near Field Pattern



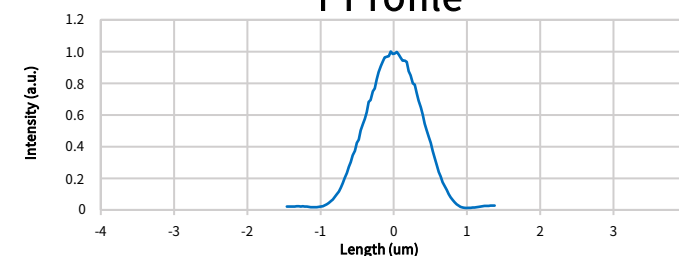
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	2.03	2.41	3.59
Y	0.9	1.07	1.44

X Profile



Y Profile



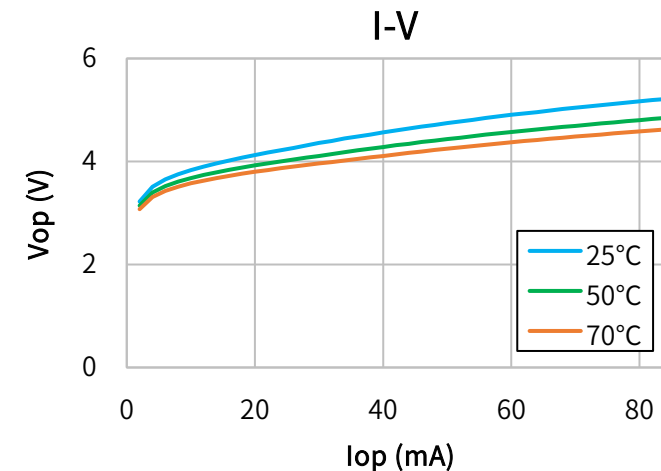
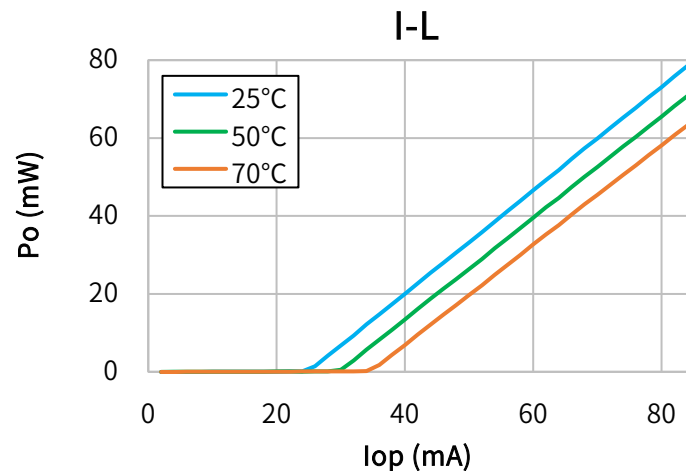


Characteristics

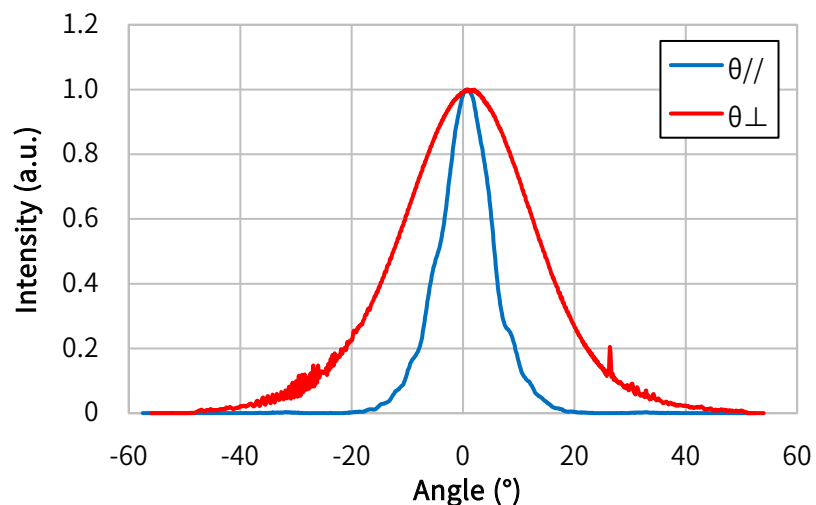
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=80mW	450nm
Output [Max]	—	80mW[85mW]
Threshold current	—	22mA
Operating current	Po=80mW	84mA
Operating voltage	Po=80mW	5.1V
Far Field (FWHM)	Po=80mW	$\theta_{//} 10^\circ, \theta_{\perp} 24^\circ$
Terminal connections	No.8	
Package type	$\phi 5.6$	

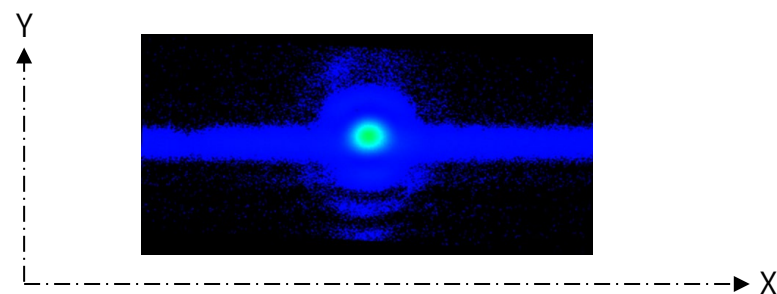
CW I-L, I-V Temperature



Far Field Pattern



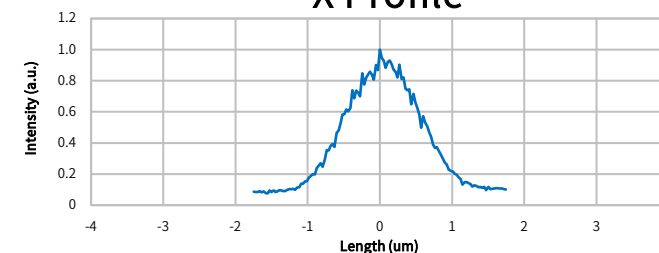
Near Field Pattern



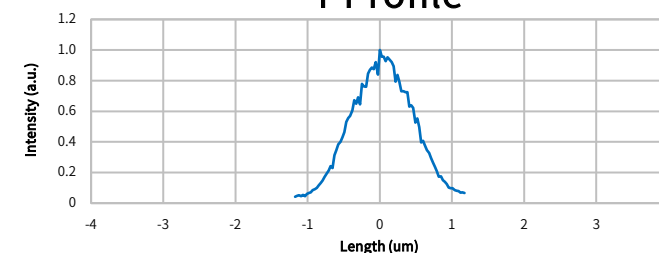
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.2	1.4	2.4
Y	0.8	1.0	1.4

X Profile



Y Profile





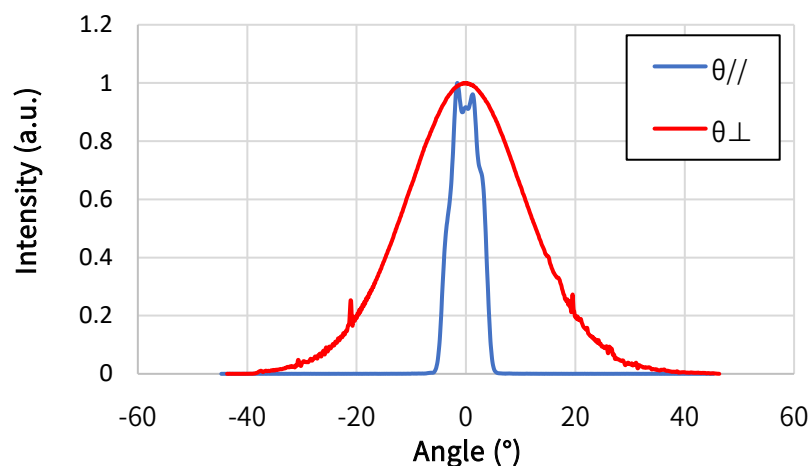
Characteristics

(Tc=25°C, CW)

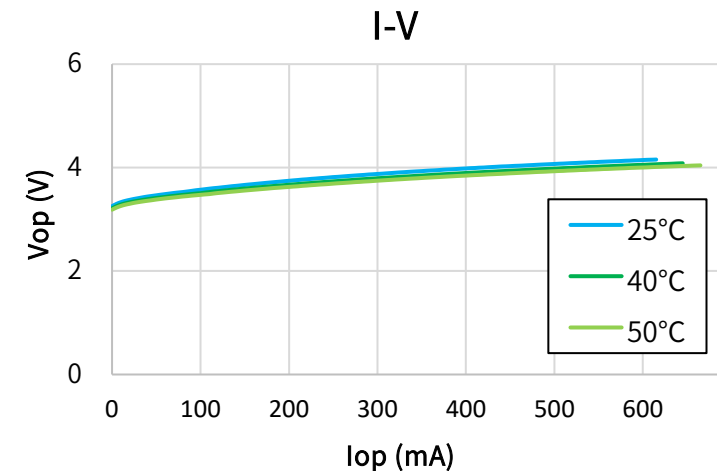
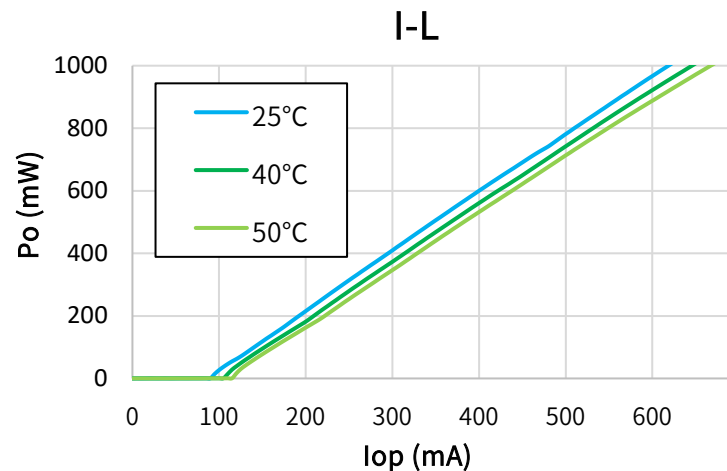
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=1000mW	450nm
Output [Max]	— TC=-10~+25°C TC=+50°C	1000mW [1100mW] [1000mW]
Threshold current	—	100mA
Operating current	Po=1000mW	680mA
Operating voltage	Po=1000mW	4.3V
Far Field (1/e ²)	Po=1000mW	θ// 10°, θ⊥ 45°

Terminal connections	No.9
Package type	φ5.6

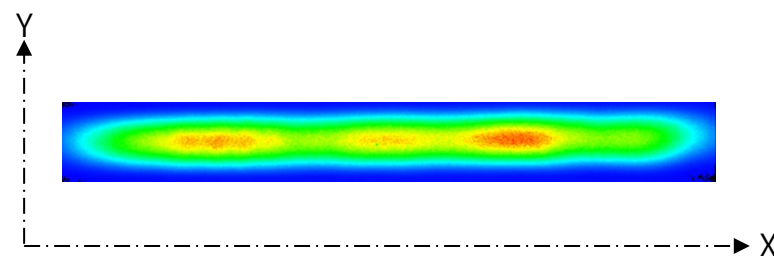
Far Field Pattern



CW I-L, I-V Temperature



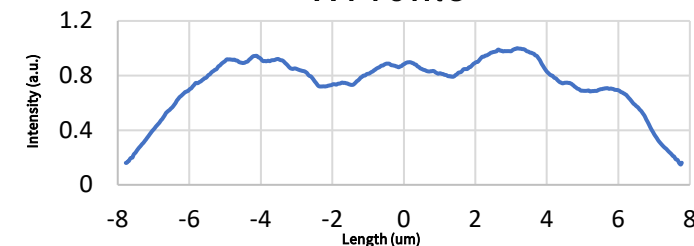
Near Field Pattern



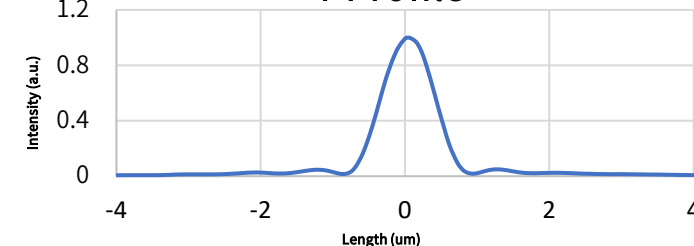
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	13.5	14.0	15.6
Y	0.8	1.0	1.3

X Profile



Y Profile



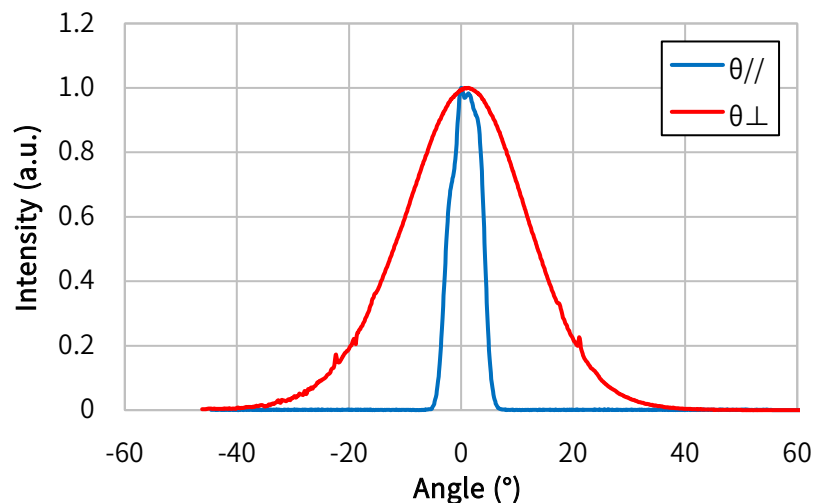


Characteristics

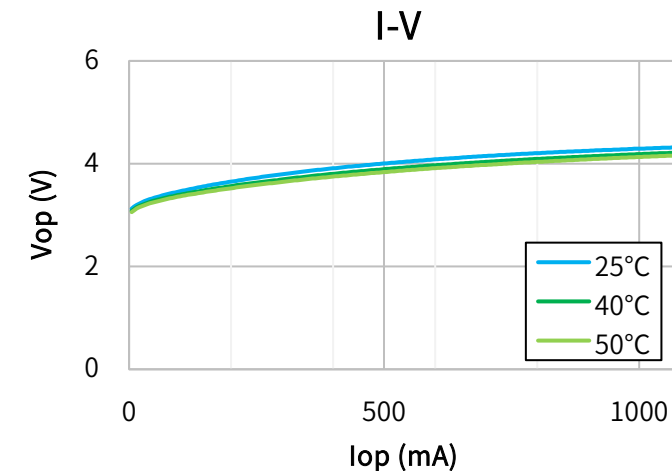
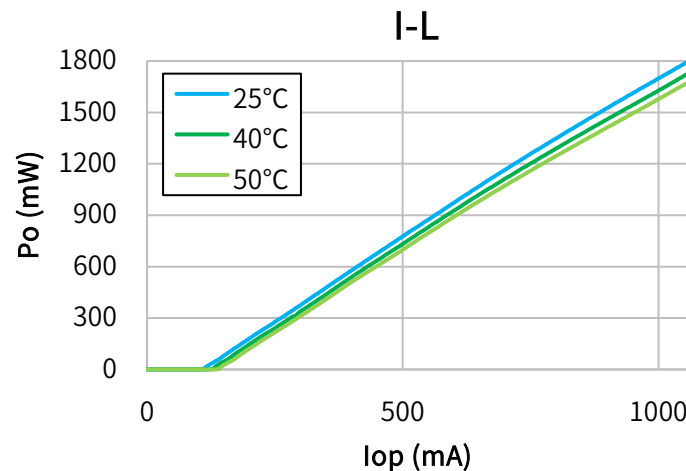
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=1800mW	450nm
Output [Max]	—	1800mW [2000mW]
Threshold current	—	110mA
Operating current	Po=1800mW	1100mA
Operating voltage	Po=1800mW	4.1V
Far Field (FWHM)	Po=1800mW	θ// 7°, θ⊥ 26°
Terminal connections	No.9	
Package type	φ5.6	

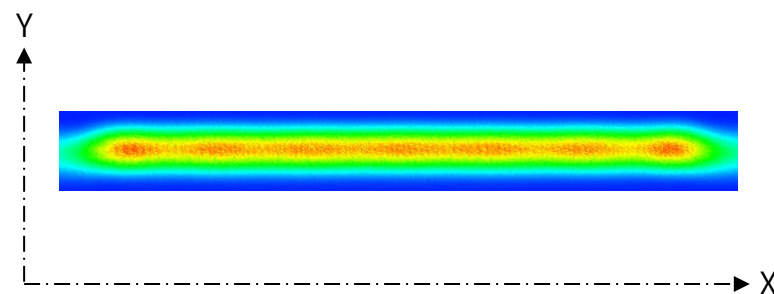
Far Field Pattern



CW I-L, I-V Temperature



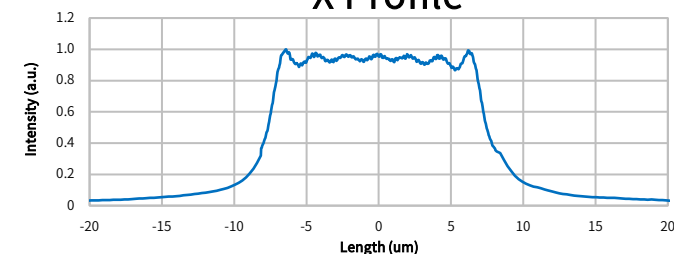
Near Field Pattern



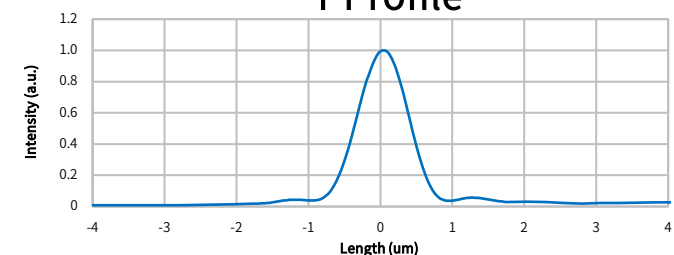
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	15.1	16.1	20.2
Y	0.8	1.0	1.3

X Profile



Y Profile



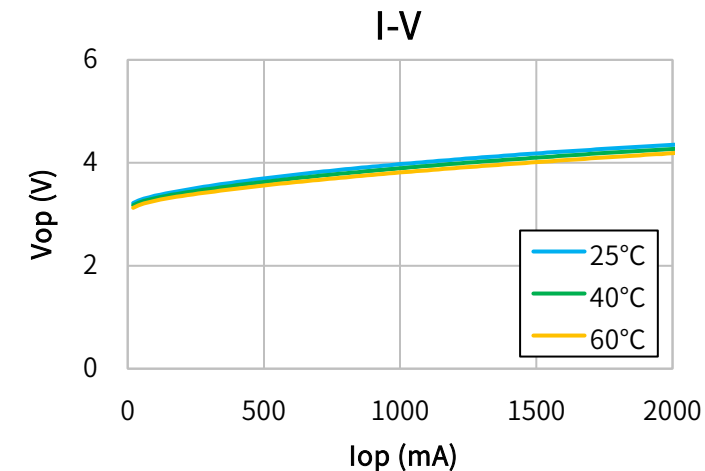
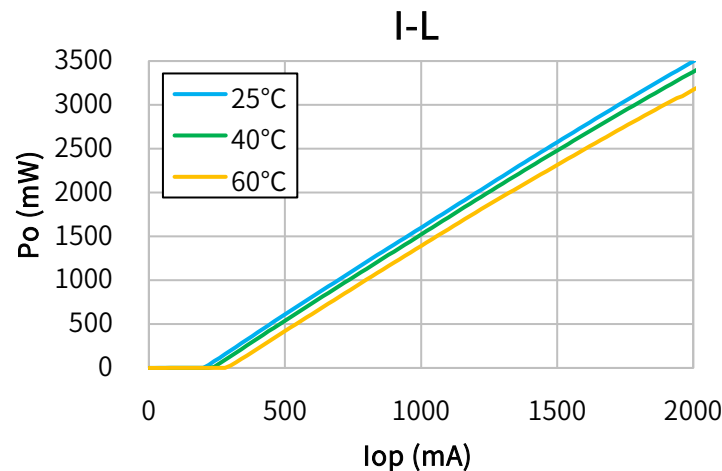


Characteristics

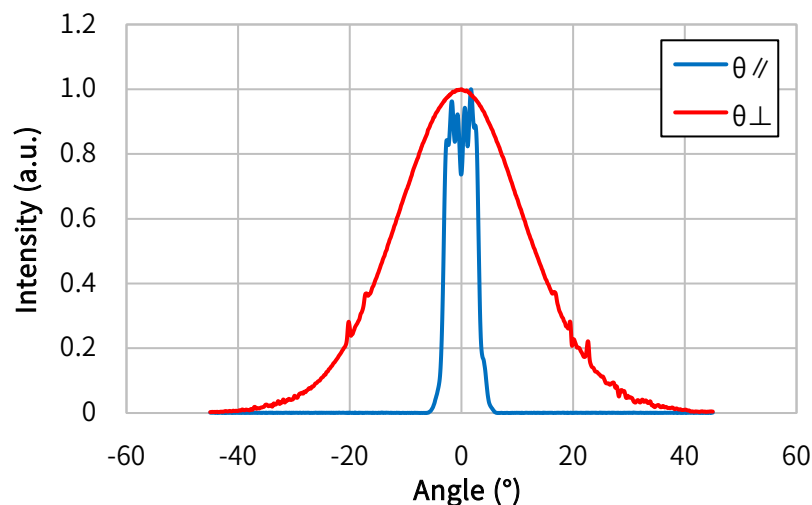
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=3500mW	450nm
Output	—	3500mW
Threshold current	—	260mA
Operating current	Po=3500mW	2100mA
Operating voltage	Po=3500mW	4.4V
Far Field (1/e ²)	Po=3500mW	$\theta_{//} 9^\circ$, $\theta_{\perp} 47^\circ$
Terminal connections	No.13	
Package type	$\phi 9.0$	

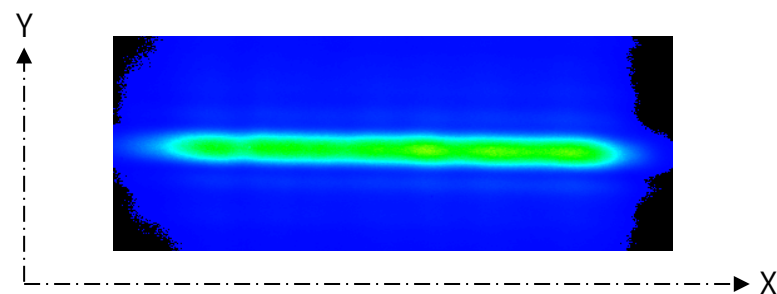
CW I-L, I-V Temperature



Far Field Pattern



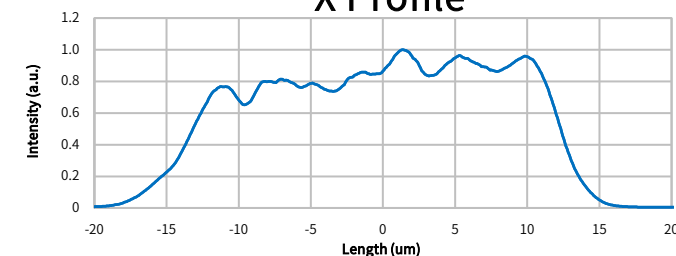
Near Field Pattern



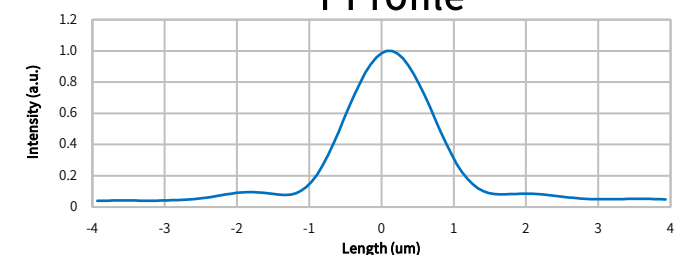
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	25.5	26.7	30.2
Y	1.4	1.6	2.3

X Profile



Y Profile



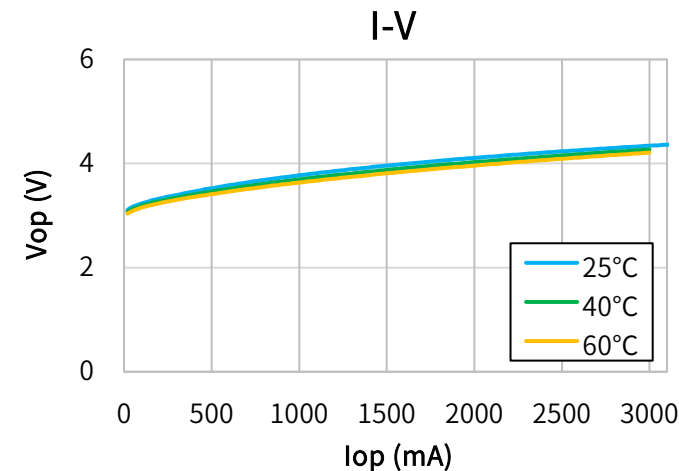
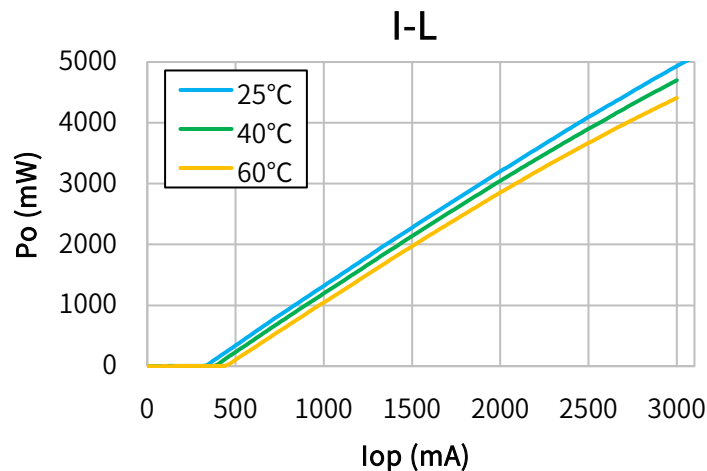


Characteristics

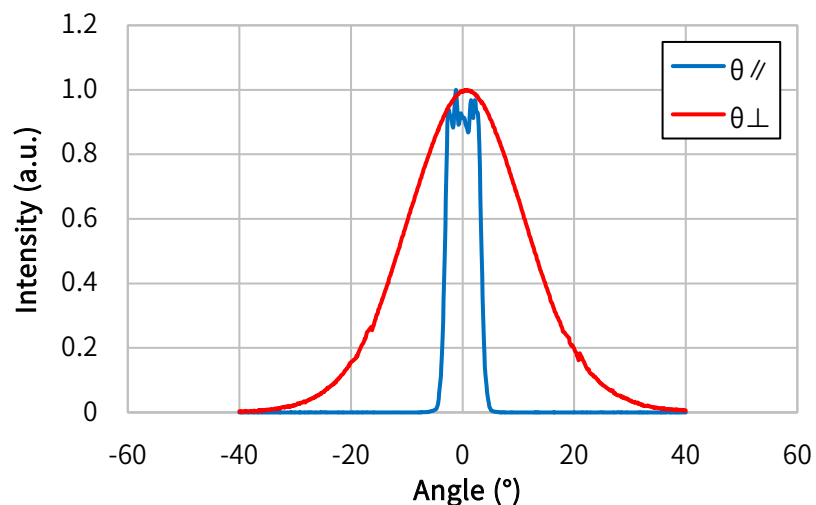
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=5000mW	450nm
Output	—	5000mW
Threshold current	—	300mA
Operating current	Po=5000mW	2950mA
Operating voltage	Po=5000mW	4.1V
Far Field (1/e ²)	Po=5000mW	$\theta_{//}$ 9°, $\theta_{\perp}$ 46°
Terminal connections	No.13	
Package type	ϕ9.0	

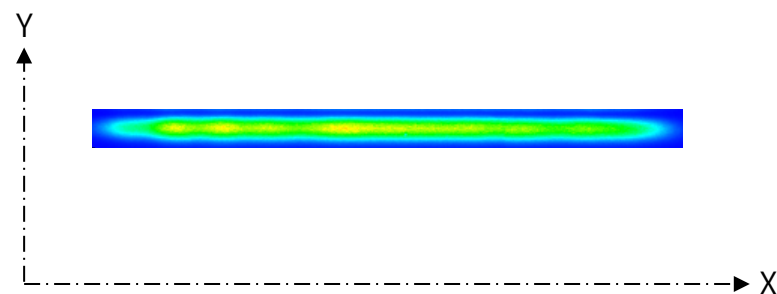
CW I-L, I-V Temperature



Far Field Pattern



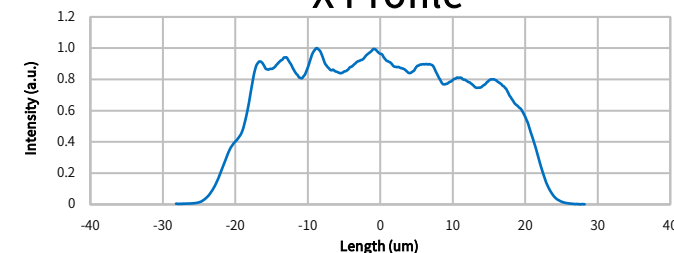
Near Field Pattern



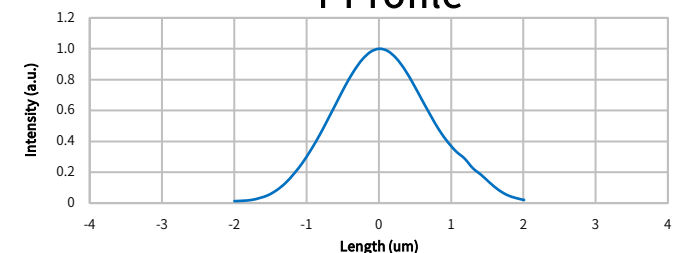
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	39.3	42.0	45.6
Y	1.6	3.0	3.7

X Profile



Y Profile



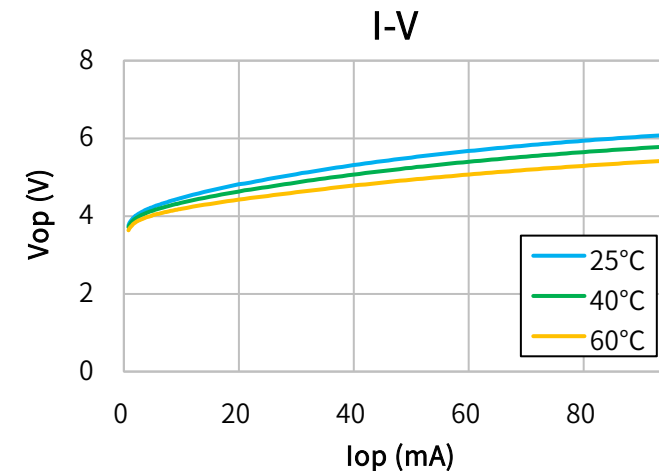
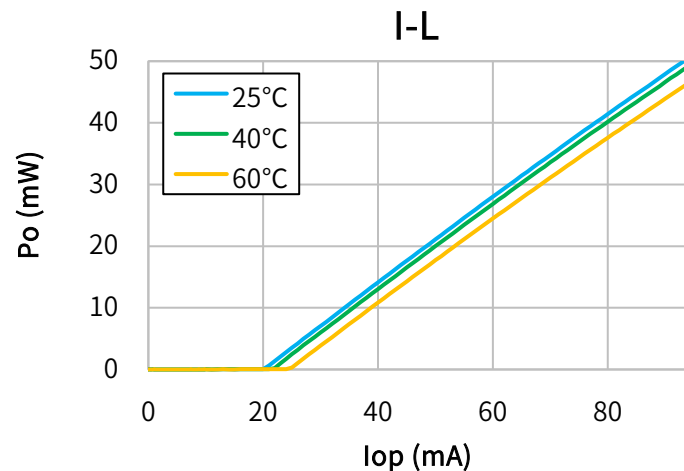


Characteristics

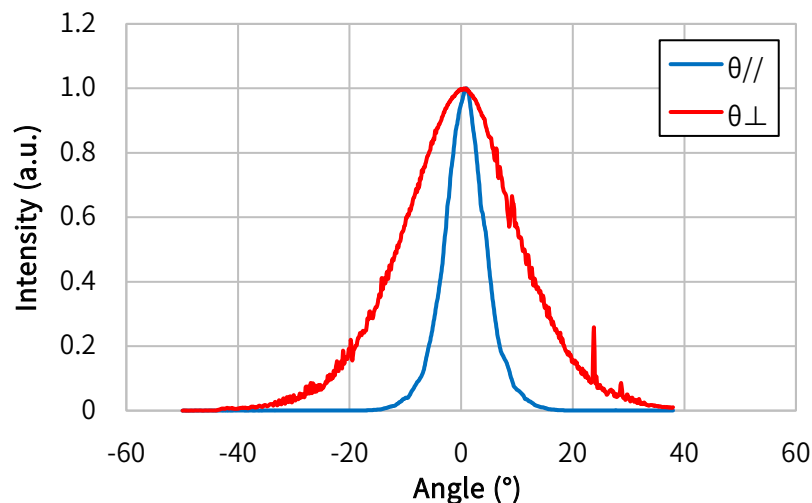
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=50mW	487nm
Output [Max]	—	50mW[55mW]
Threshold current	—	40mA
Operating current	Po=50mW	105mA
Operating voltage	Po=50mW	6.0V
Far Field (FWHM)	Po=50mW	$\theta_{//}$ 8°, $\theta_{\perp}$ 23°
Terminal connections	No.8	
Package type	$\phi 5.6$	

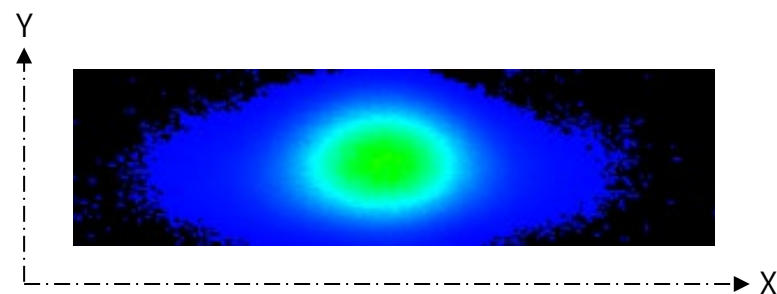
CW I-L, I-V Temperature



Far Field Pattern



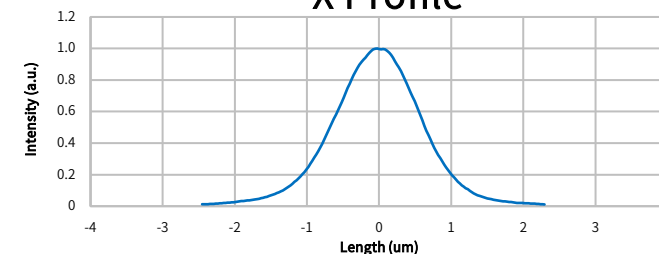
Near Field Pattern



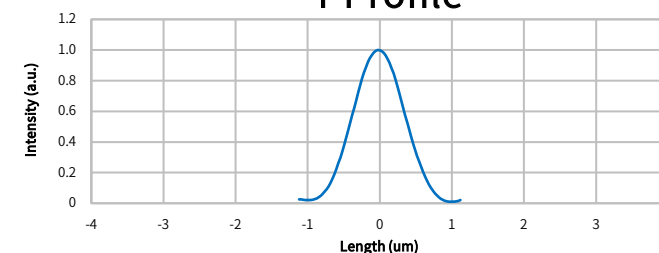
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.3	1.6	2.4
Y	0.8	1.0	1.4

X Profile



Y Profile



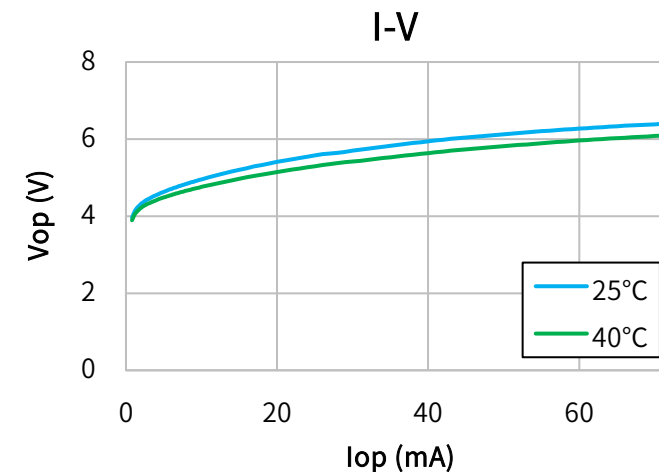
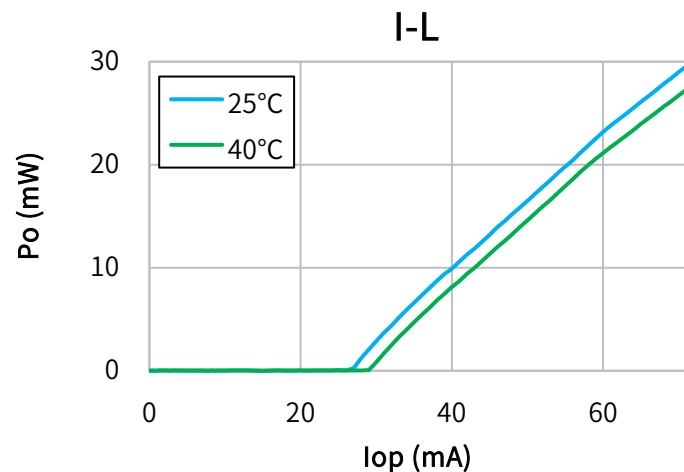


Characteristics

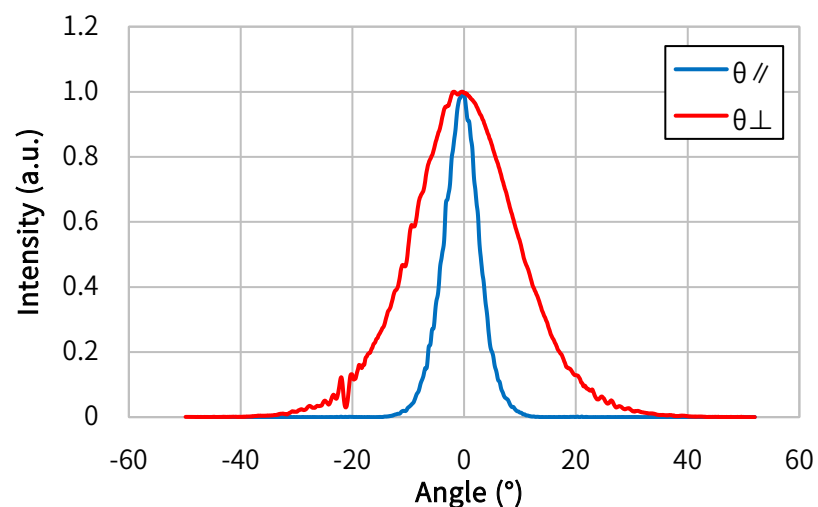
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=30mW	518nm
Output [Max]	—	30mW[35mW]
Threshold current	—	25mA
Operating current	Po=30mW	75mA
Operating voltage	Po=30mW	6.2V
Far Field (FWHM)	Po=30mW	$\theta_{\parallel} 7.5^{\circ}$, $\theta_{\perp} 22^{\circ}$
Terminal connections	No.8	
Package type	$\phi 5.6$	

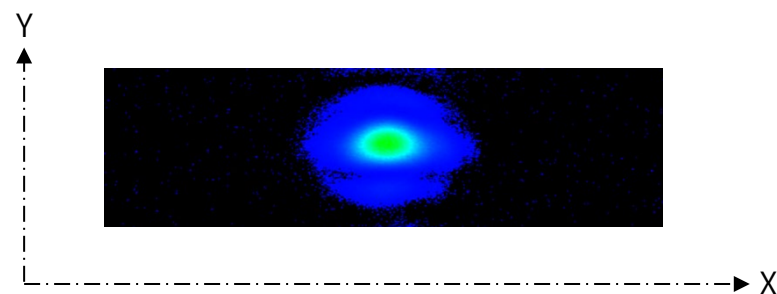
CW I-L, I-V Temperature



Far Field Pattern



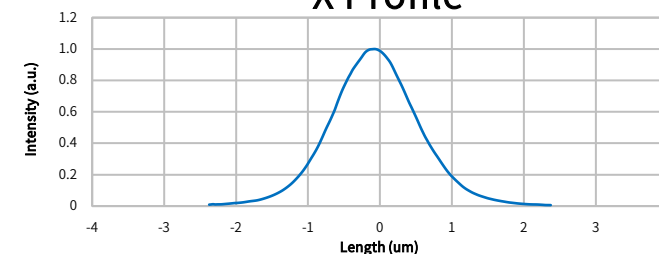
Near Field Pattern



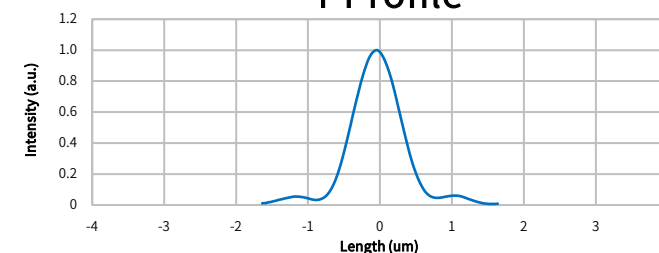
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile



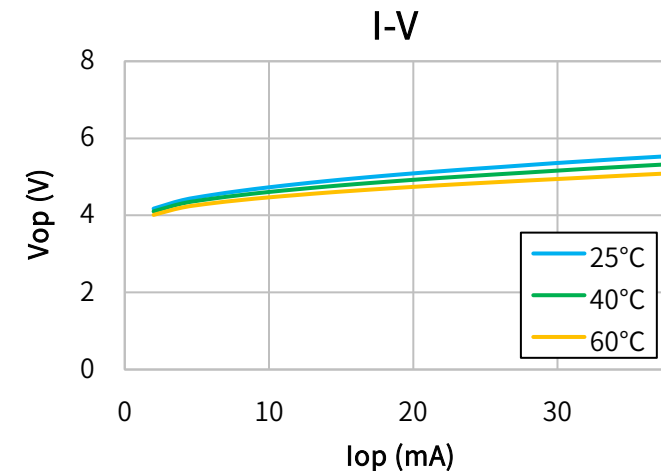
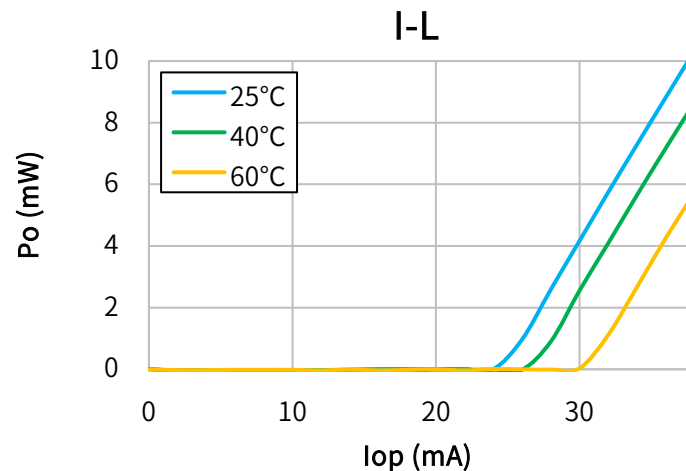


Characteristics

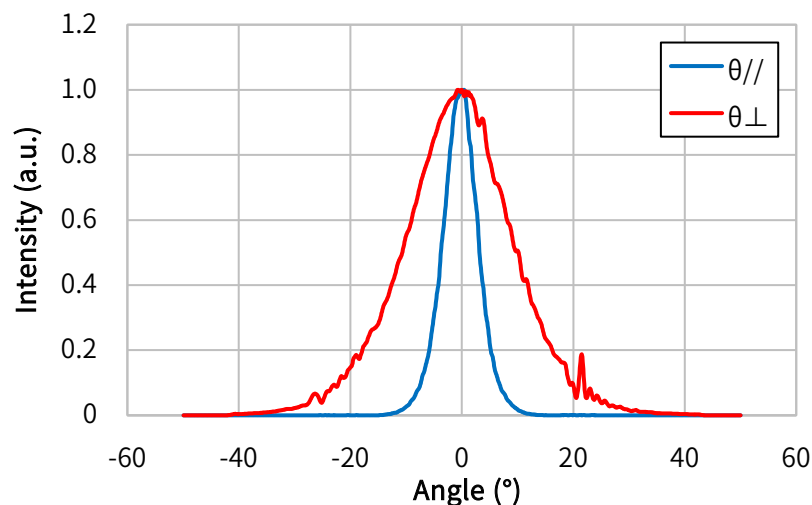
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=10mW	520nm
Output [Max]	—	10mW[15mW]
Threshold current	—	25mA
Operating current	Po=10mW	35mA
Operating voltage	Po=10mW	5.8V
Far Field (FWHM)	Po=10mW	$\theta_{//}$ 7°, $\theta_{\perp}$ 22°
Terminal connections	No.4	
Package type	ϕ5.6	

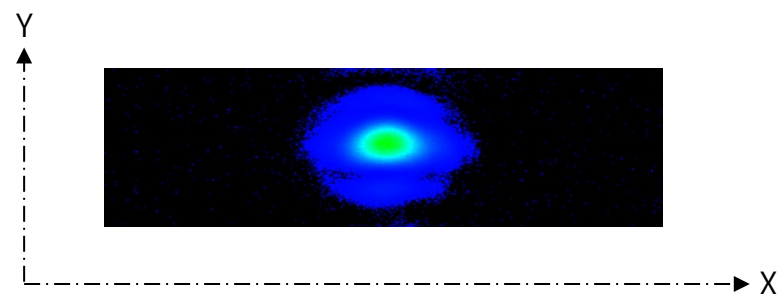
CW I-L, I-V Temperature



Far Field Pattern



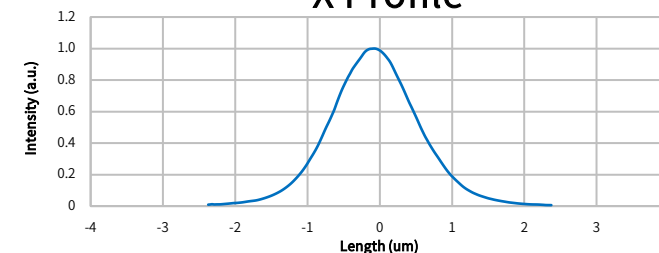
Near Field Pattern



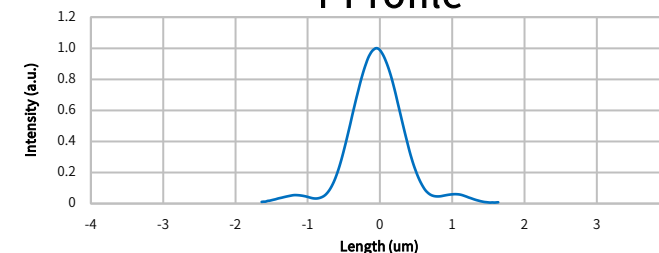
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile





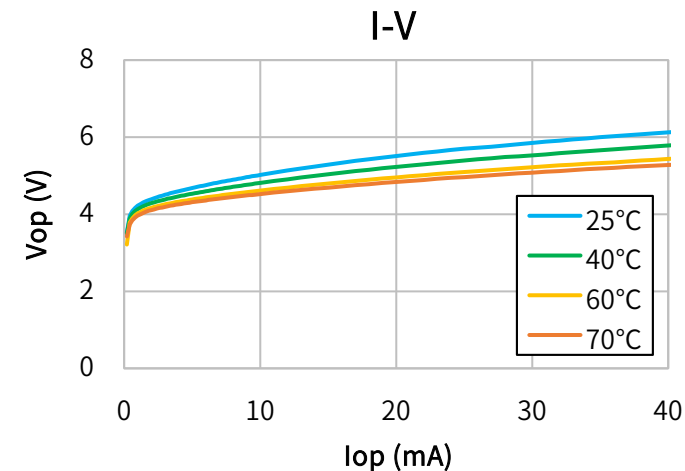
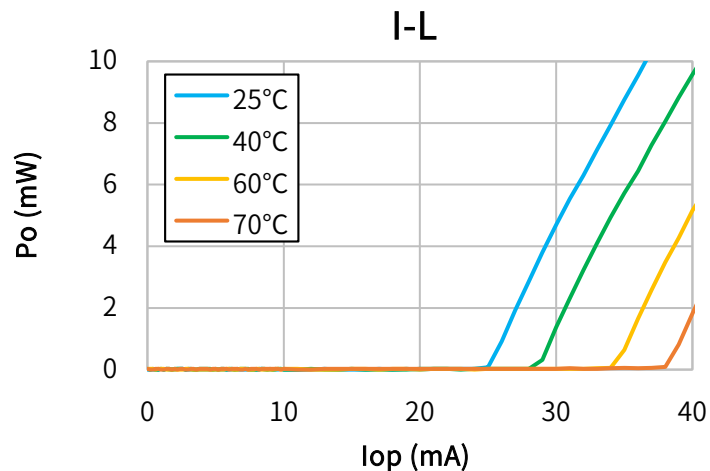
Characteristics

(Tc=25°C, CW)

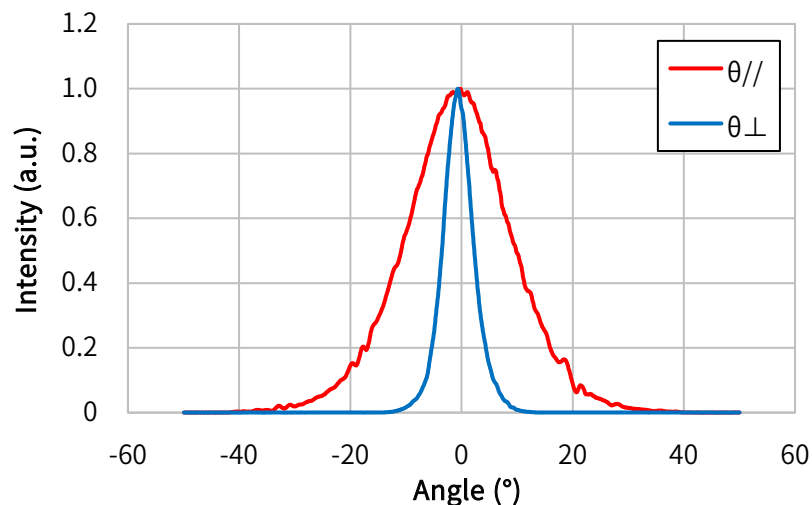
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=10mW	520nm
Output [Max]	—	10mW[15mW]
Threshold current	—	25mA
Operating current	Po=10mW	35mA
Operating voltage	Po=10mW	5.8V
Far Field (FWHM)	Po=10mW	$\theta_{//}$ 7°, $\theta_{\perp}$ 22°

Terminal connections	No.4
Package type	ϕ3.8

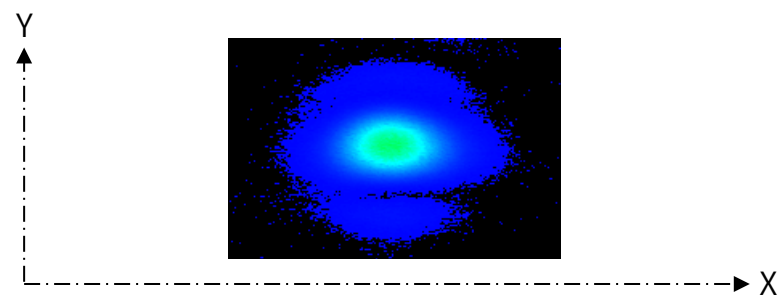
CW I-L, I-V Temperature



Far Field Pattern



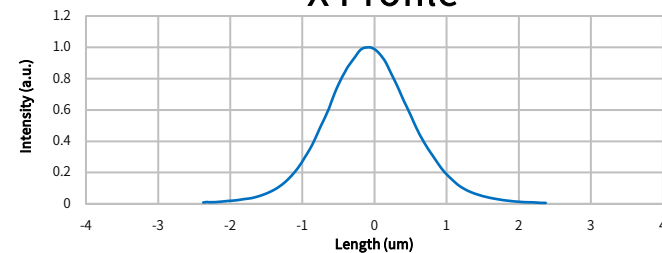
Near Field Pattern



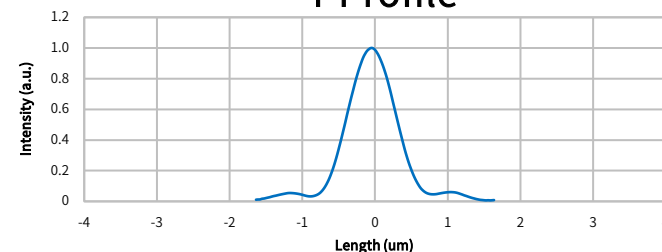
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	1.3	1.6	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile



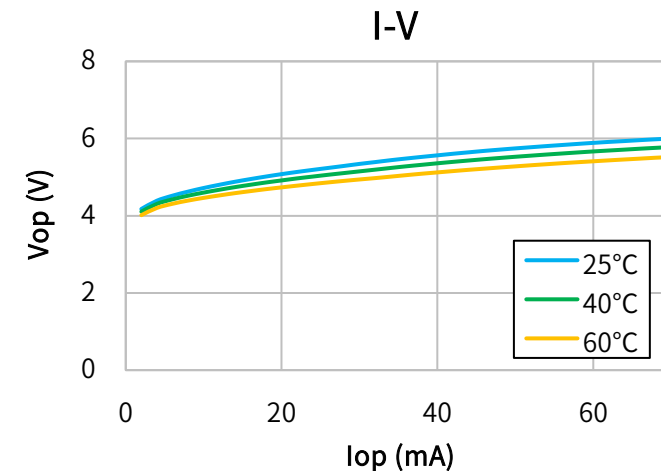
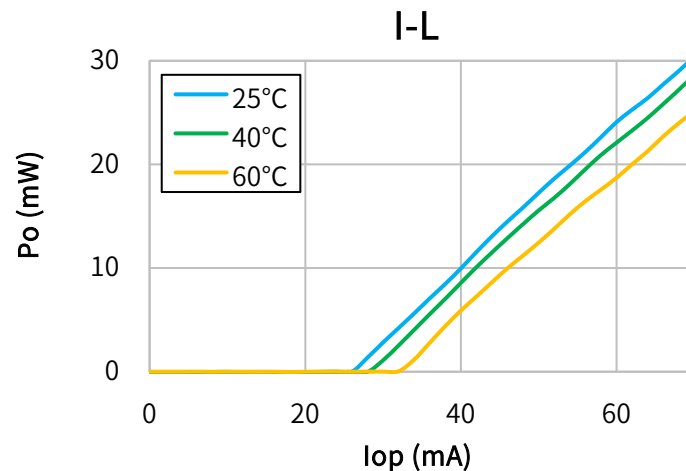


Characteristics

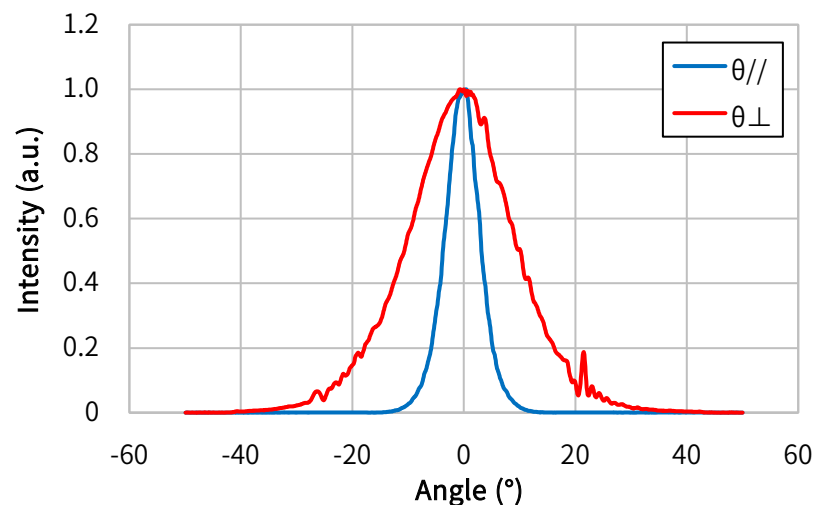
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=30mW	520nm
Output [Max]	—	30mW[35mW]
Threshold current	—	25mA
Operating current	Po=30mW	70mA
Operating voltage	Po=30mW	6.5V
Far Field (FWHM)	Po=30mW	$\theta_{//}$ 7°, $\theta_{\perp}$ 22°
Terminal connections	No.4	
Package type	ϕ5.6	

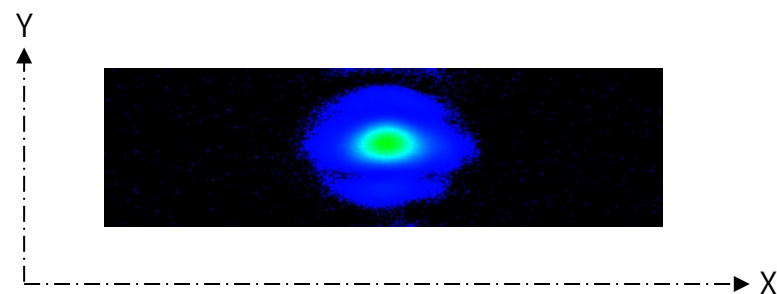
CW I-L, I-V Temperature



Far Field Pattern



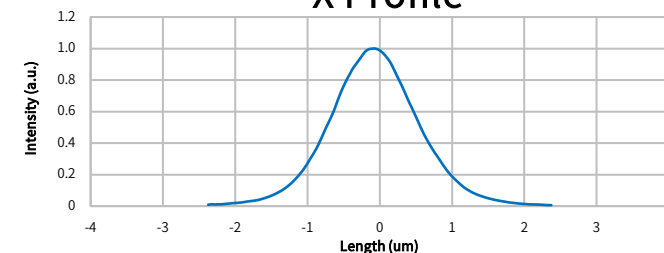
Near Field Pattern



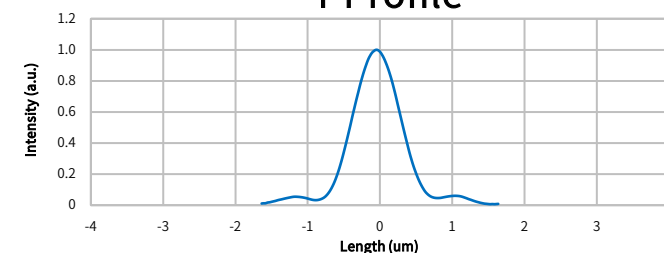
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile





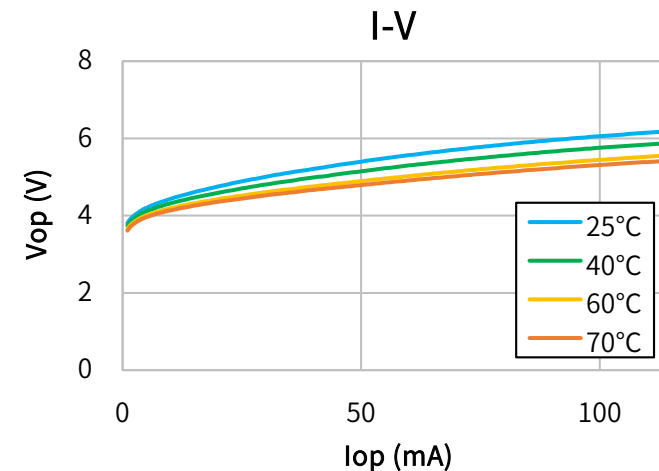
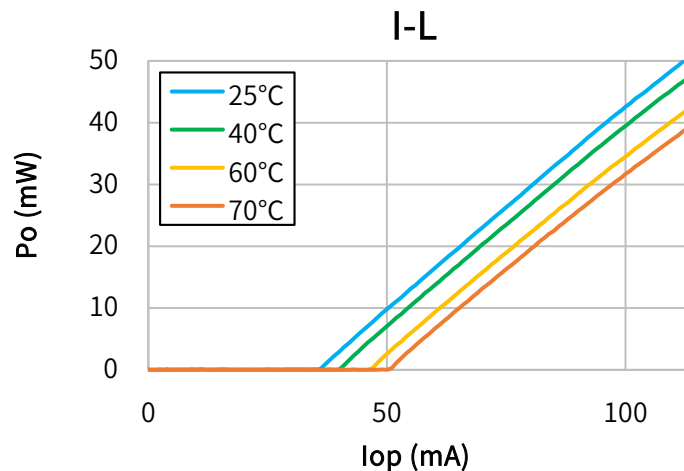
Characteristics

(T_c=25°C, CW)

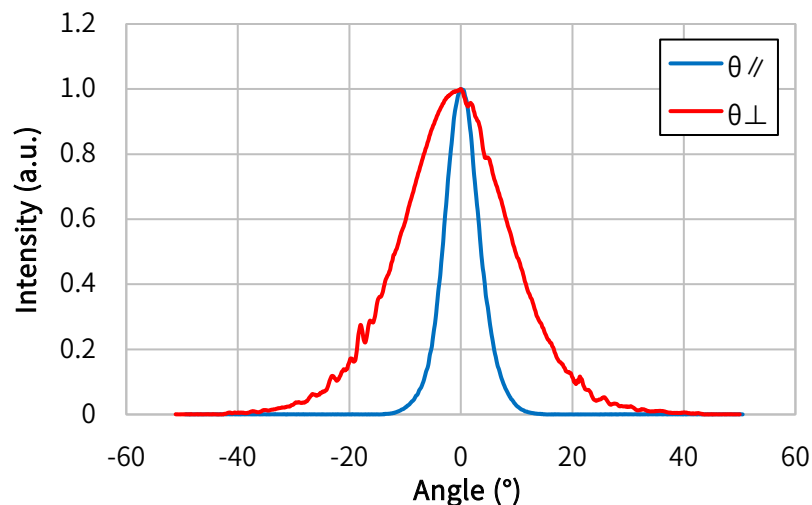
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=50mW	520nm
Output [Max]	—	50mW[55mW]
Threshold current	—	40mA
Operating current	Po=50mW	100mA
Operating voltage	Po=50mW	5.9V
Far Field (FWHM)	Po=50mW	θ // 7°, θ ⊥ 22°

Terminal connections	No.4
Package type	ϕ5.6

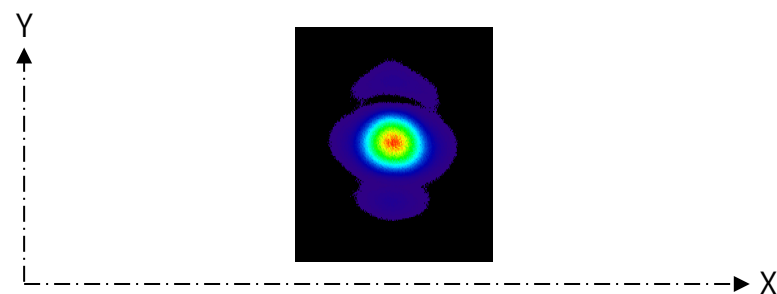
CW I-L, I-V Temperature



Far Field Pattern



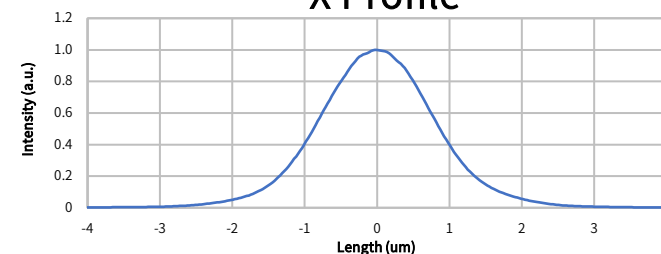
Near Field Pattern



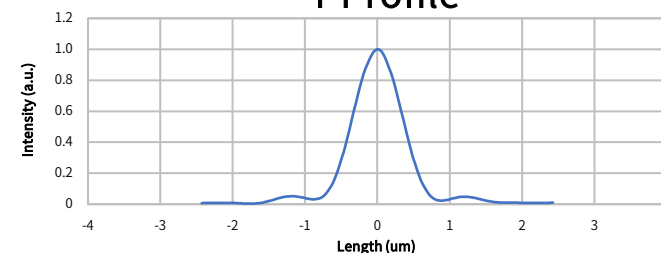
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	1.8	2.1	3.0
Y	0.8	0.9	1.2

X Profile



Y Profile





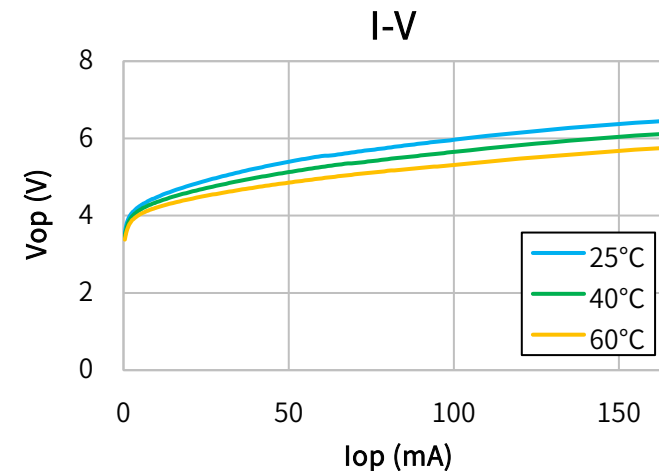
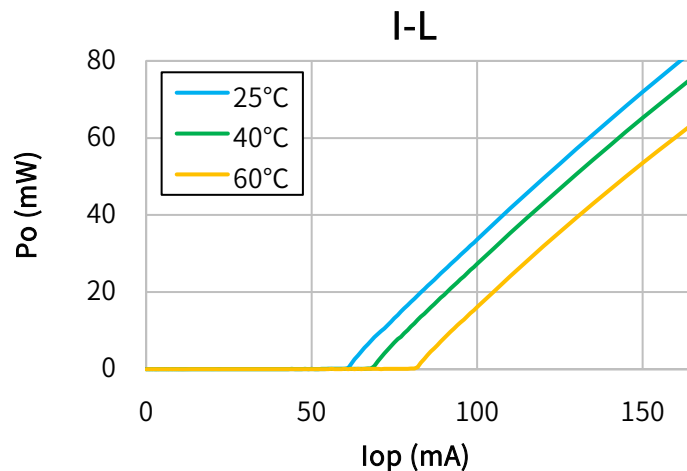
Characteristics

(T_c=25°C, CW)

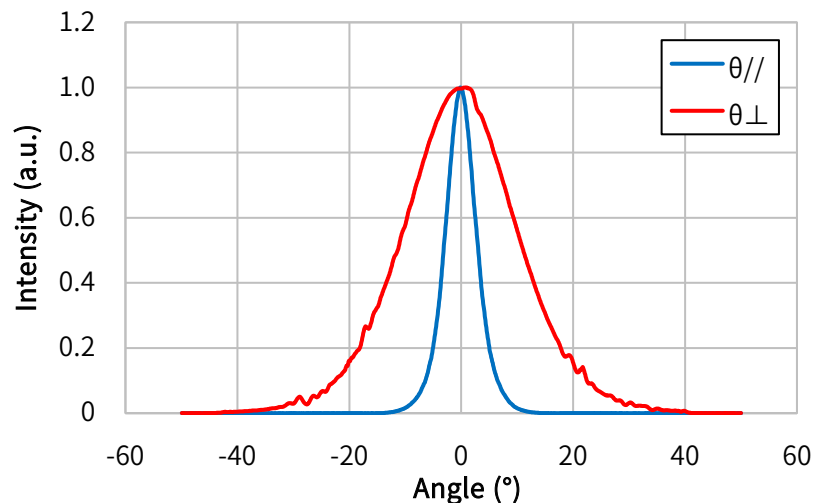
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=80mW	520nm
Output [Max]	—	80mW[85mW]
Threshold current	—	50mA
Operating current	Po=80mW	150mA
Operating voltage	Po=80mW	6.5V
Far Field (FWHM)	Po=80mW	$\theta_{//}$ 7°, $\theta_{\perp}$ 23°

Terminal connections	No.4
Package type	ϕ5.6

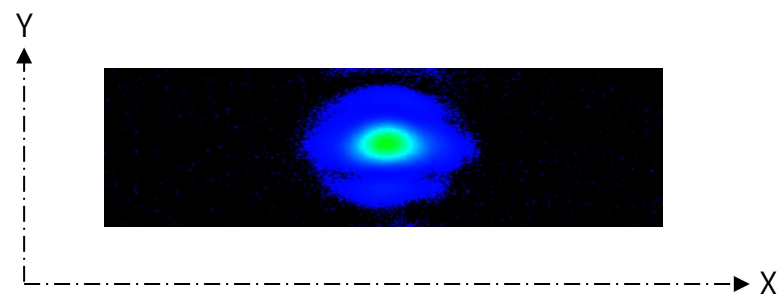
CW I-L, I-V Temperature



Far Field Pattern



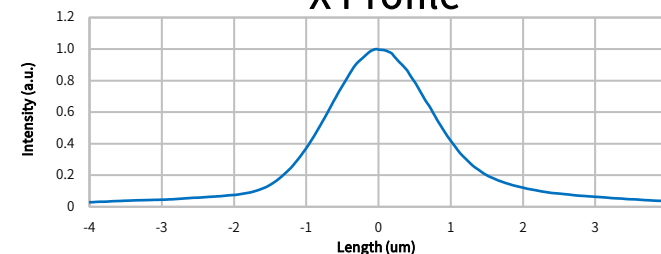
Near Field Pattern



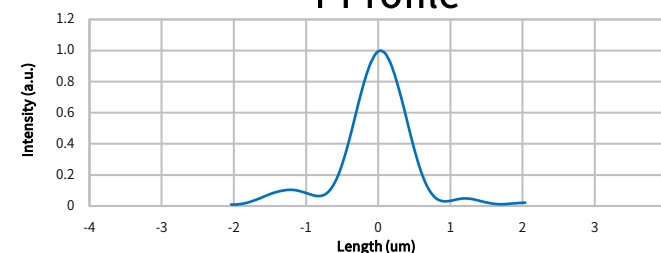
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile





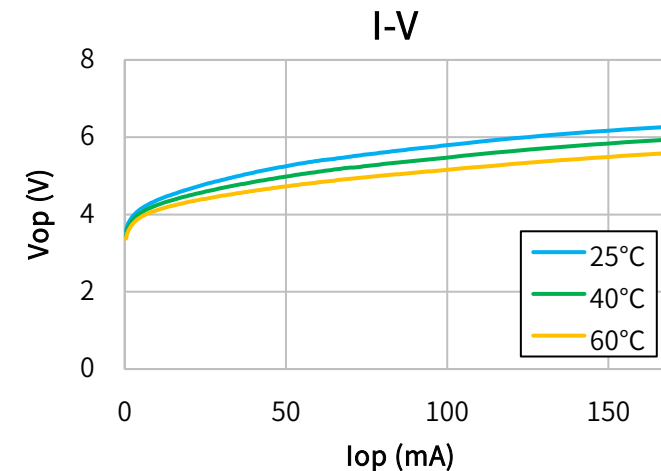
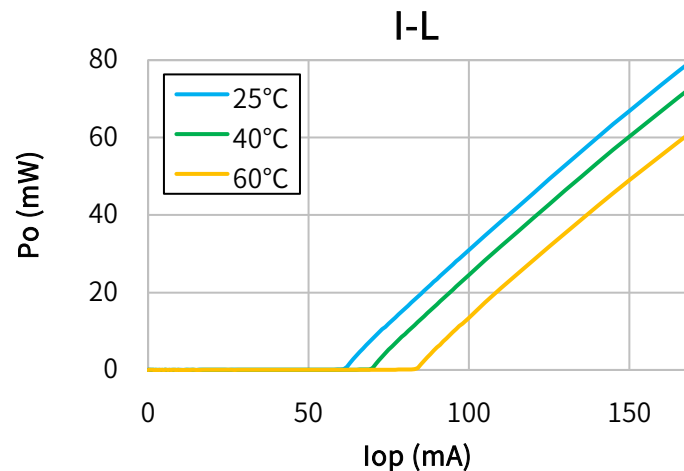
Characteristics

(Tc=25°C, CW)

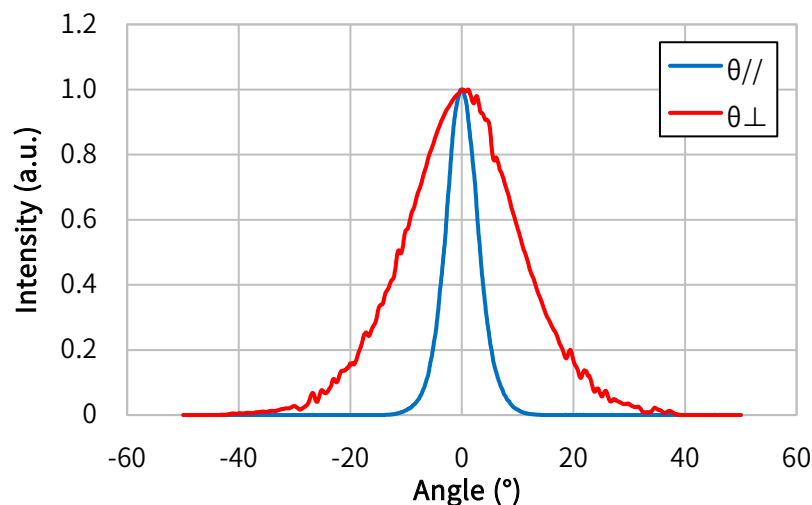
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=80mW	520nm
Output [Max]	—	80mW[85mW]
Threshold current	—	65mA
Operating current	Po=80mW	180mA
Operating voltage	Po=80mW	6.5V
Far Field (FWHM)	Po=80mW	$\theta_{//} 7^\circ$, $\theta_{\perp} 23^\circ$

Terminal connections	No.4
Package type	$\phi 3.8$

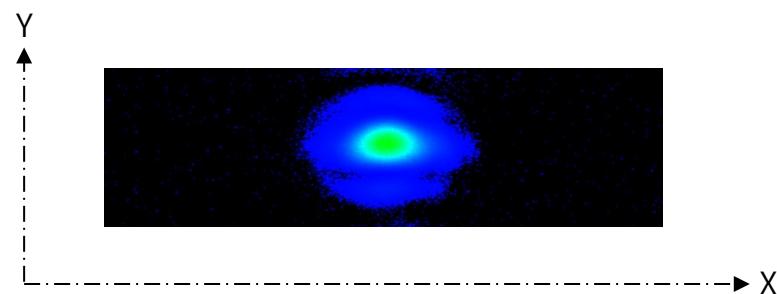
CW I-L, I-V Temperature



Far Field Pattern



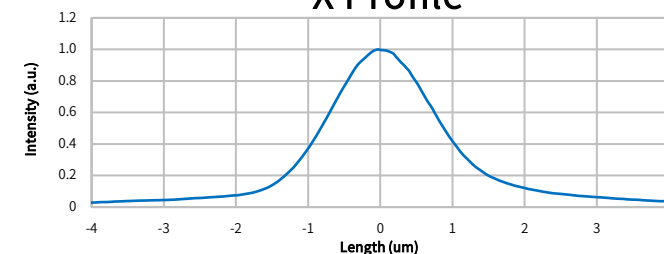
Near Field Pattern



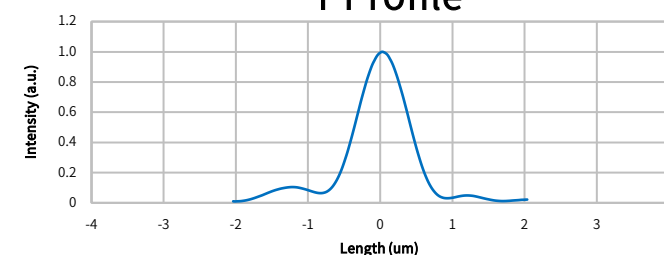
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile





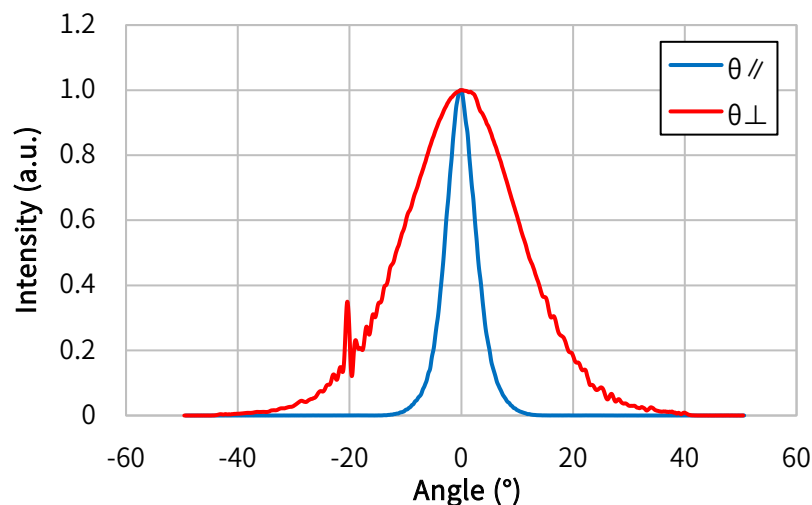
Characteristics

(Tc=25°C, CW)

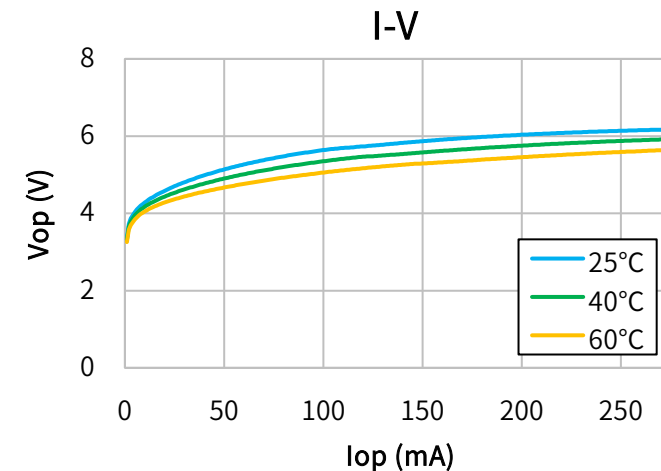
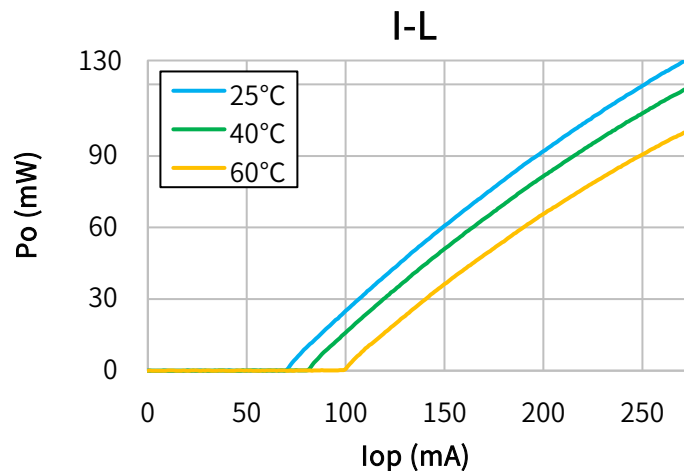
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=130mW	520nm
Output [Max]	—	130mW [135mW]
Threshold current	—	70mA
Operating current	Po=130mW	270mA
Operating voltage	Po=130mW	6.7V
Far Field (FWHM)	Po=130mW	$\theta_{//}$ 8°, $\theta_{\perp}$ 22°

Terminal connections	No.8
Package type	ϕ5.6

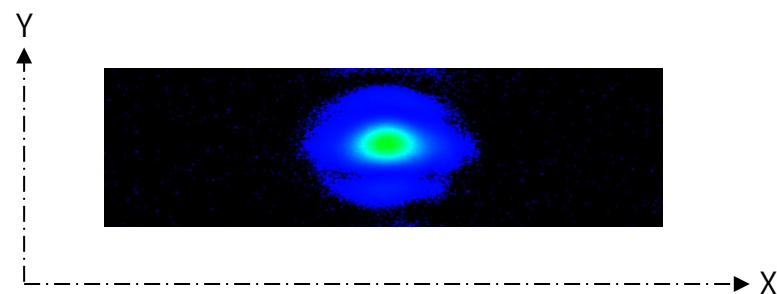
Far Field Pattern



CW I-L, I-V Temperature



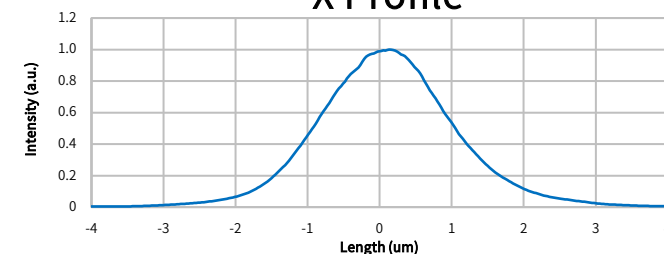
Near Field Pattern



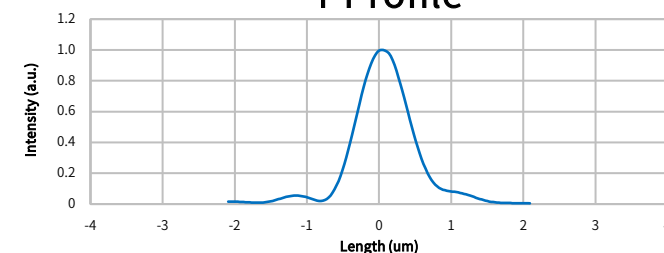
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	1.3	1.5	2.4
Y	0.7	0.9	1.2

X Profile



Y Profile



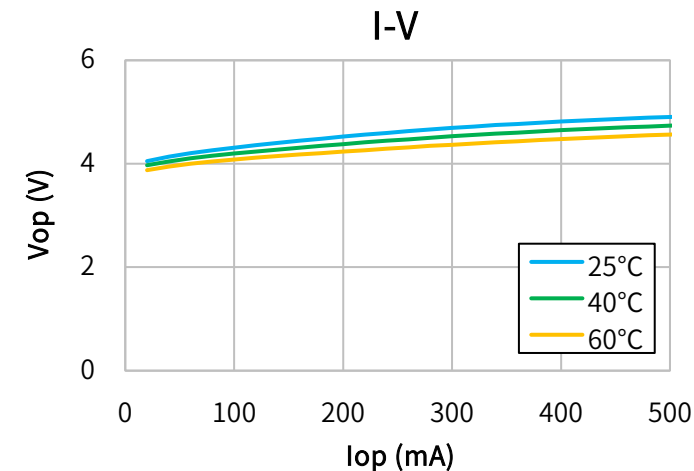
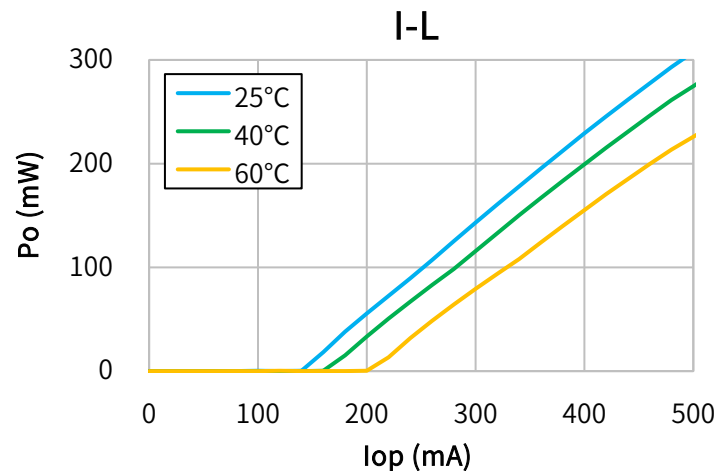


Characteristics

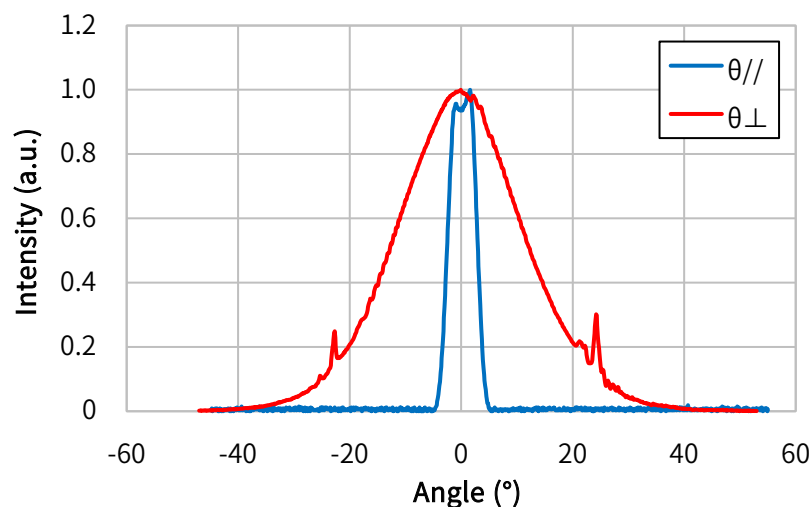
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=300mW	520nm
Output	—	300mW
Threshold current	—	100mA
Operating current	Po=300mW	500mA
Operating voltage	Po=300mW	5.2V
Far Field (FWHM)	Po=300mW	θ// 7°, θ⊥ 23°
Terminal connections	No.9	
Package type	φ5.6	

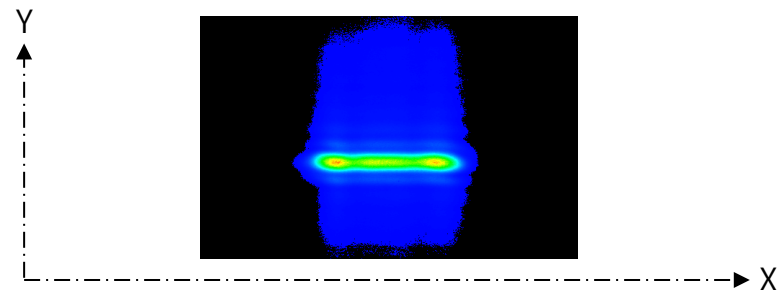
CW I-L, I-V Temperature



Far Field Pattern



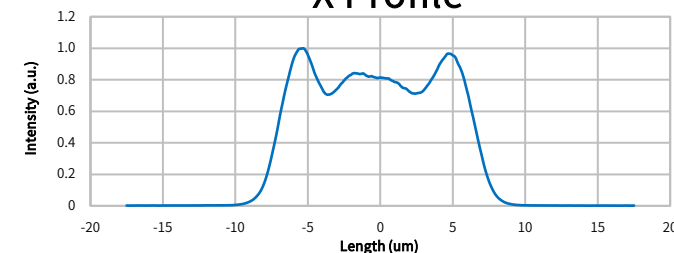
Near Field Pattern



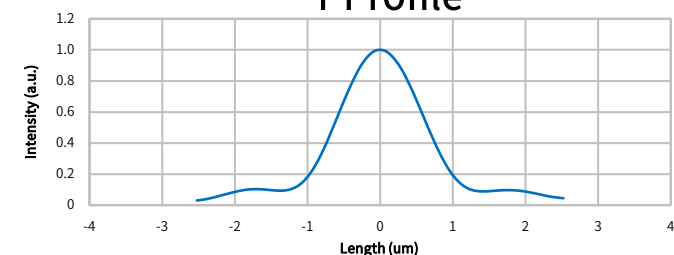
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	13.6	14.2	15.6
Y	1.3	1.6	2.2

X Profile



Y Profile



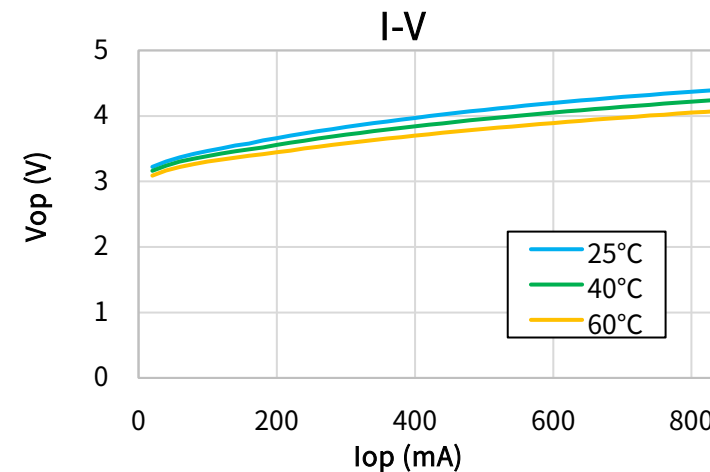
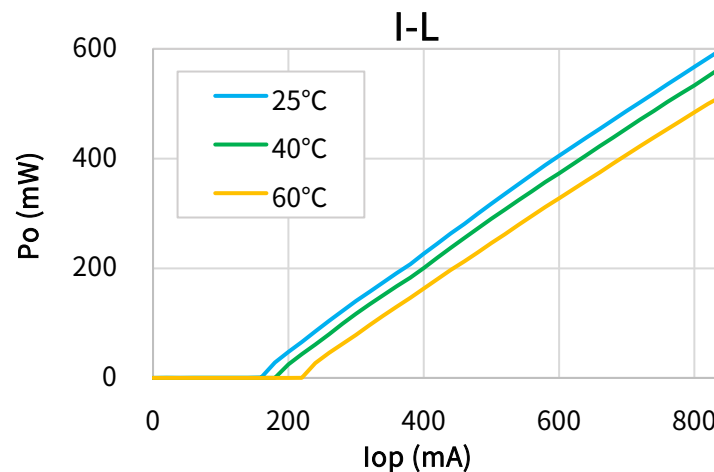


Characteristics

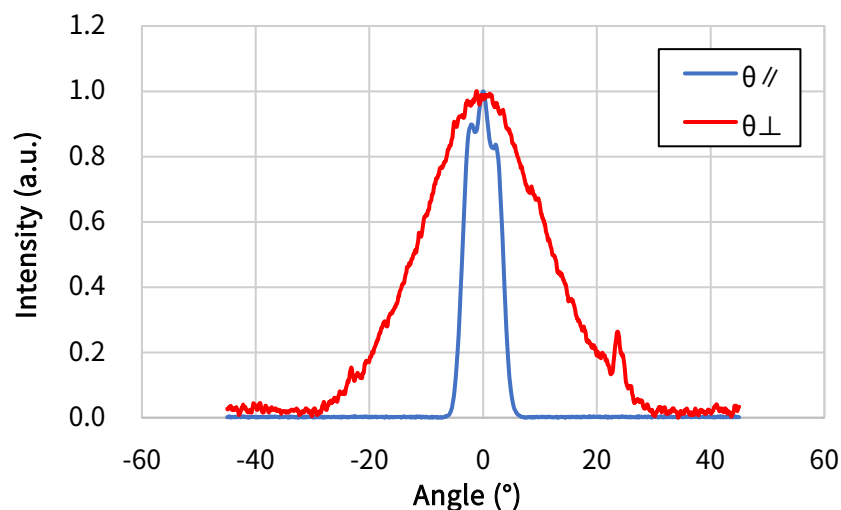
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=600mW	520nm
Output	—	600mW
Threshold current	—	180mA
Operating current	Po=600mW	840mA
Operating voltage	Po=600mW	4.4V
Far Field (1/e ²)	Po=600mW	$\theta // 9^\circ, \theta \perp 44^\circ$
Terminal connections	No.9	
Package type	$\phi 9.0$	

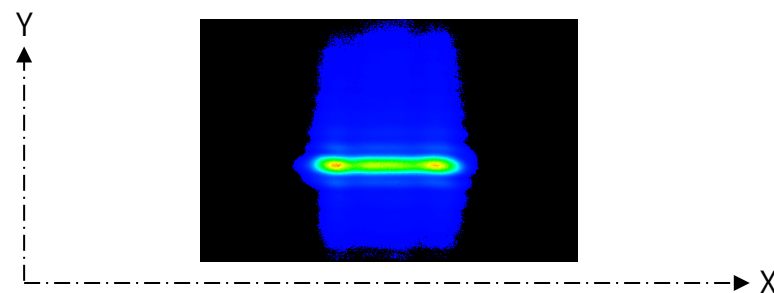
CW I-L, I-V Temperature



Far Field Pattern



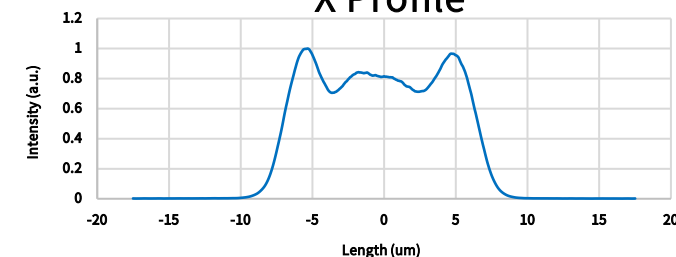
Near Field Pattern



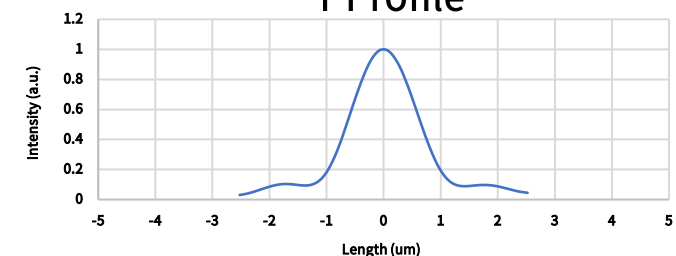
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	13.6	14.2	15.6
Y	1.3	1.6	2.2

X Profile



Y Profile



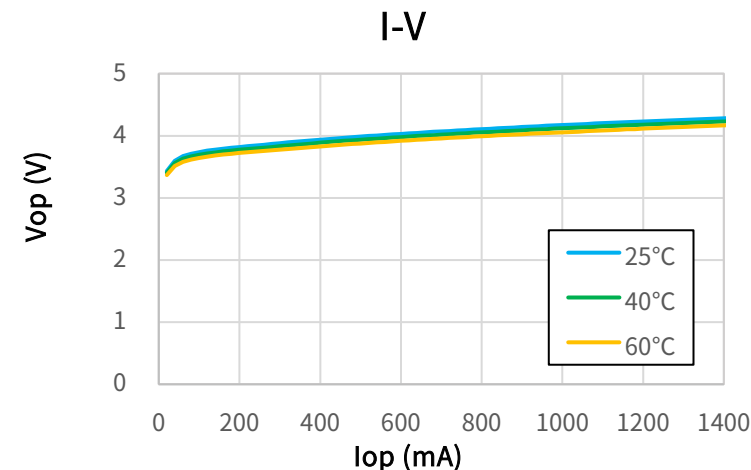
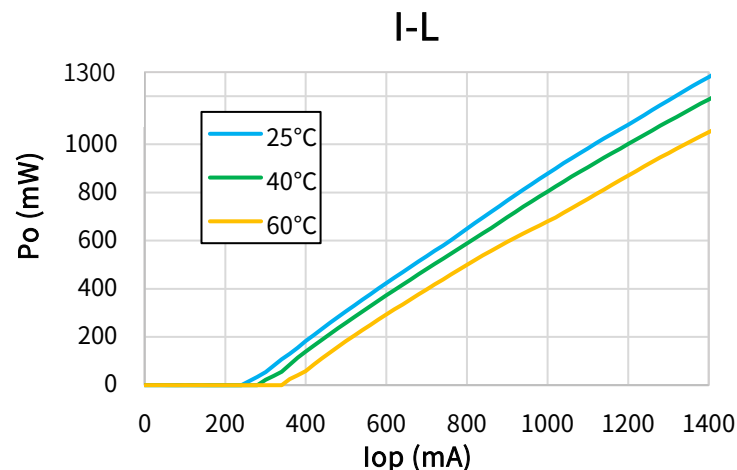


Characteristics

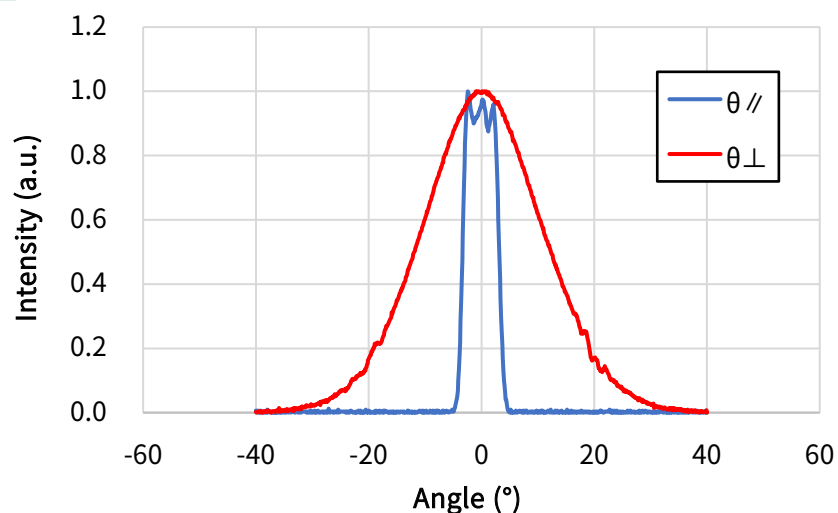
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=1300mW	525nm
Output	—	1300mW
Threshold current	—	250mA
Operating current	Po=1300mW	1400mA
Operating voltage	Po=1300mW	4.3V
Far Field (1/e ²)	Po=1300mW	$\theta_{//}$ 8°, $\theta_{\perp}$ 42°
Terminal connections	No.13	
Package type	ϕ9.0	

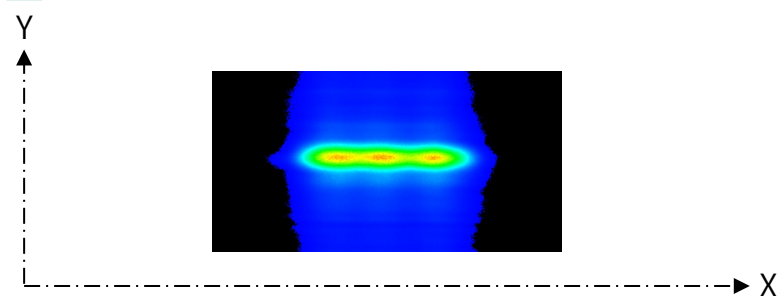
CW I-L, I-V Temperature



Far Field Pattern



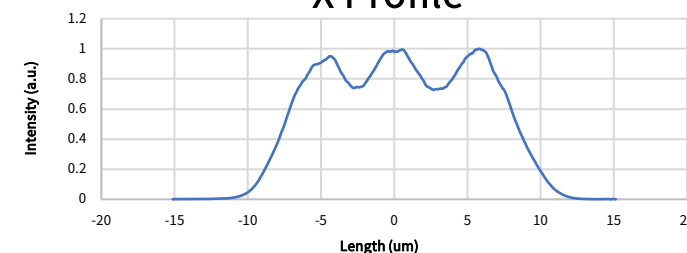
Near Field Pattern



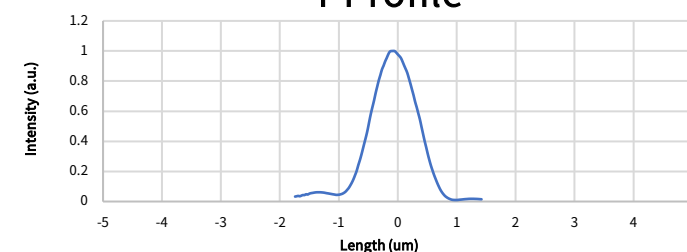
Emitter size

	FWHM (μ m)	1/e (μ m)	1/e ² (μ m)
X	16.0	17.1	19.5
Y	0.9	1.1	1.5

X Profile



Y Profile



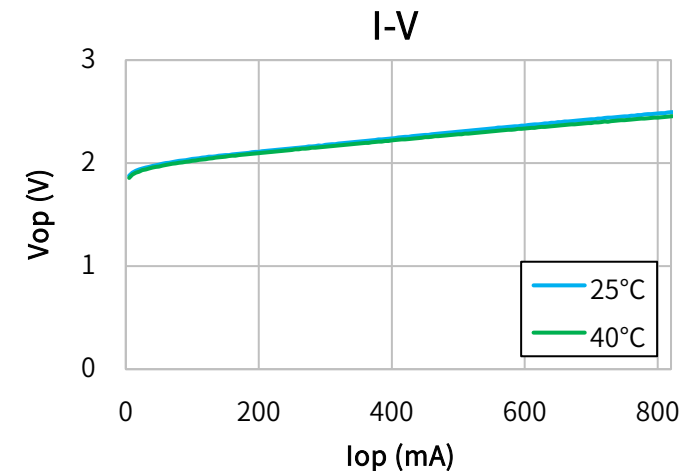
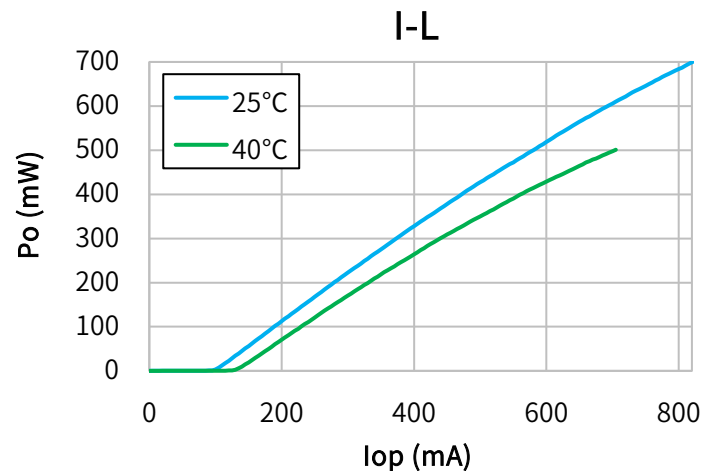


Characteristics

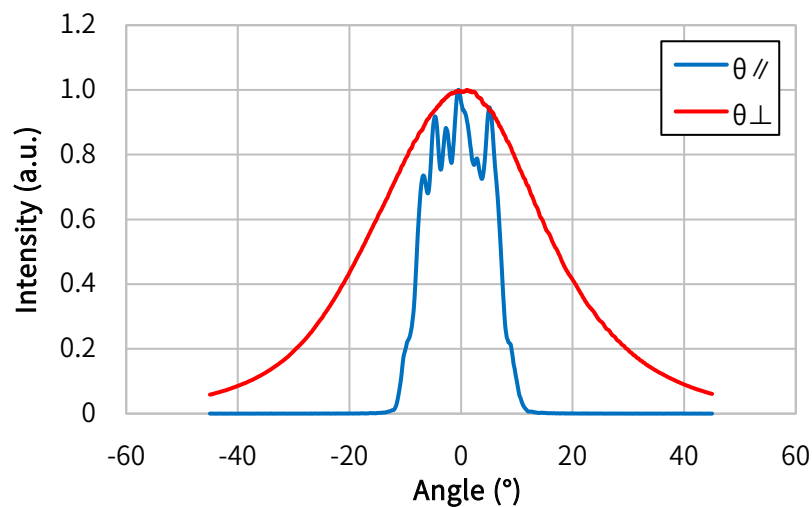
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=700mW	638nm
Output [Max]	—	700mW
Threshold current	—	110mA
Operating current	Po=700mW	810mA
Operating voltage	Po=700mW	2.5V
Far Field (FWHM)	Po=700mW	$\theta_{//} 16^\circ$, $\theta_{\perp} 35^\circ$
Terminal connections	No.9	
Package type	$\phi 5.6$	

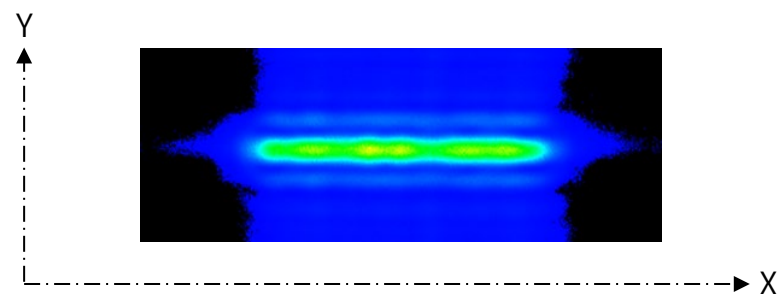
CW I-L, I-V Temperature



Far Field Pattern



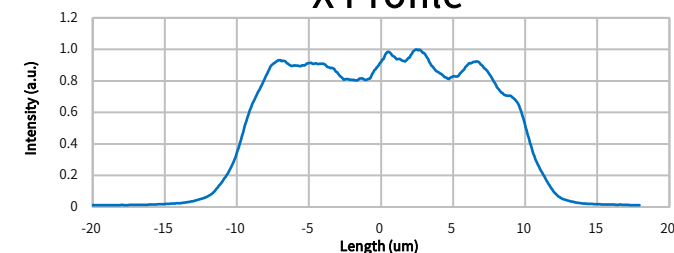
Near Field Pattern



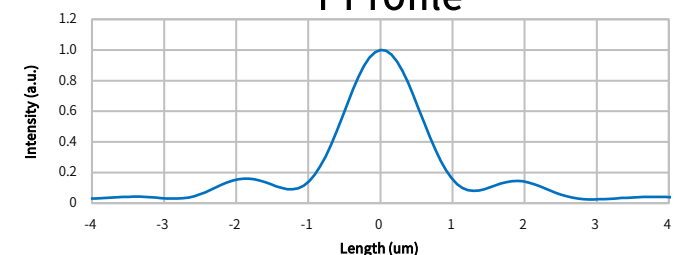
Emitter size

	FWHM (μm)	1/e (μm)	1/e ² (μm)
X	19.5	20.4	22.9
Y	1.2	1.5	2.1

X Profile



Y Profile



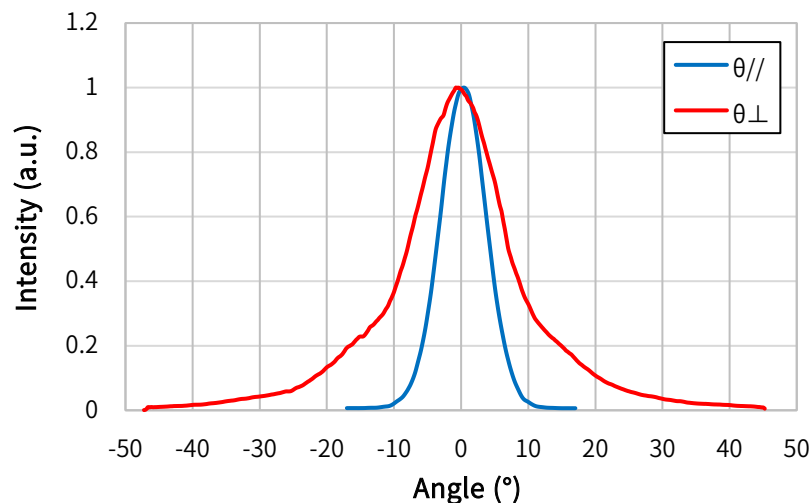


Characteristics

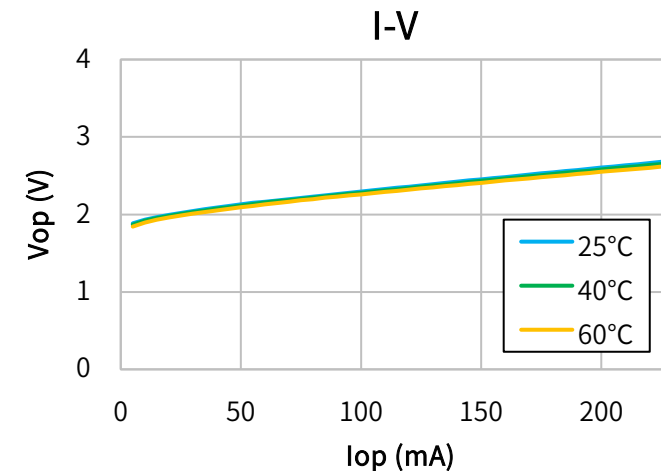
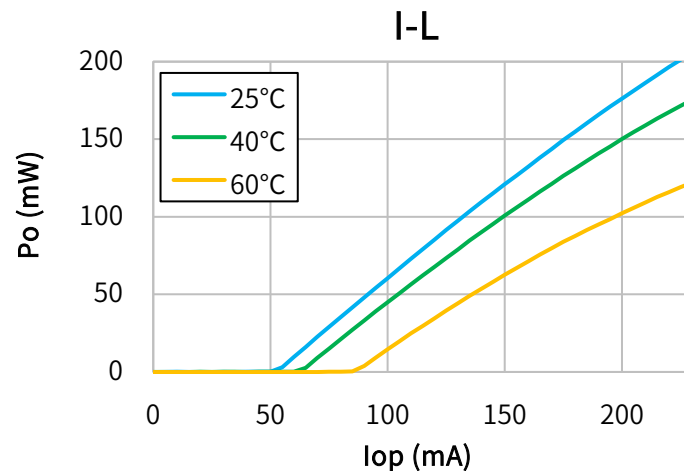
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=180mW	639nm
Output [Max]	—	180mW [185mW]
Threshold current	—	55mA
Operating current	Po=180mW	215mA
Operating voltage	Po=180mW	2.7V
Far Field (FWHM)	Po=180mW	$\theta_{//}$ 8°, $\theta_{\perp}$ 15°
Terminal connections	No.9	
Package type	ϕ5.6	

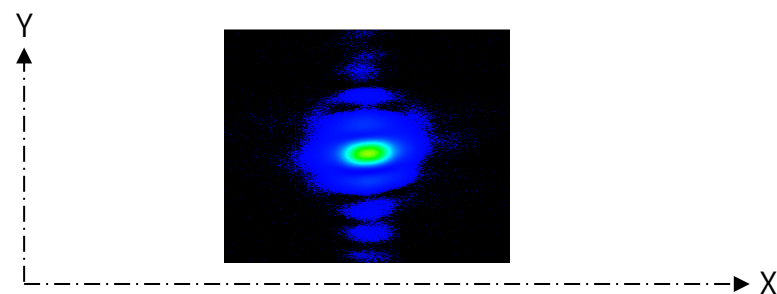
Far Field Pattern



CW I-L, I-V Temperature



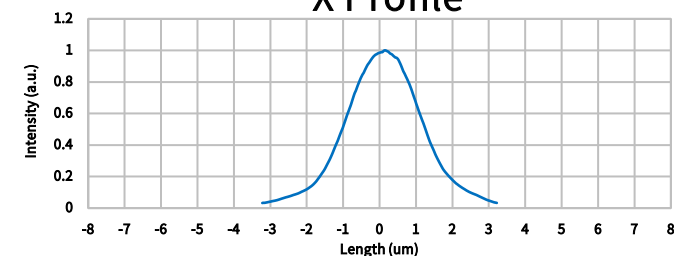
Near Field Pattern



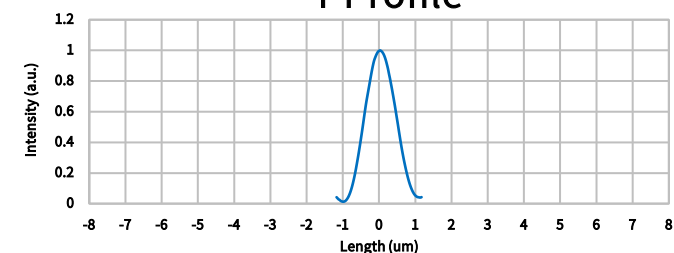
Emitter size

	FWHM (μ m)	$1/e^2$ (μ m)
X	2.3	4.1
Y	1.0	1.6

X Profile



Y Profile



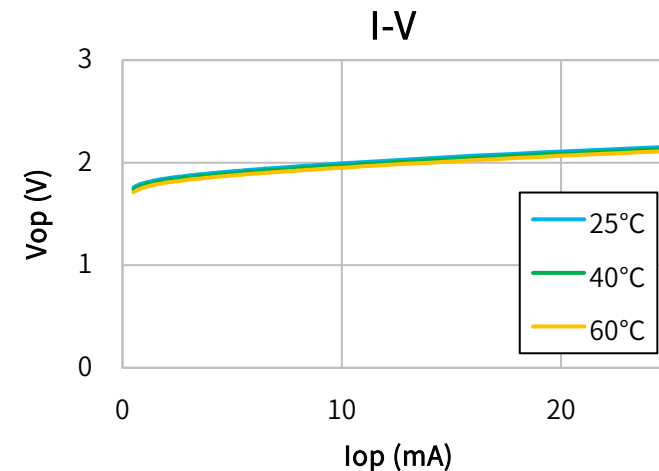
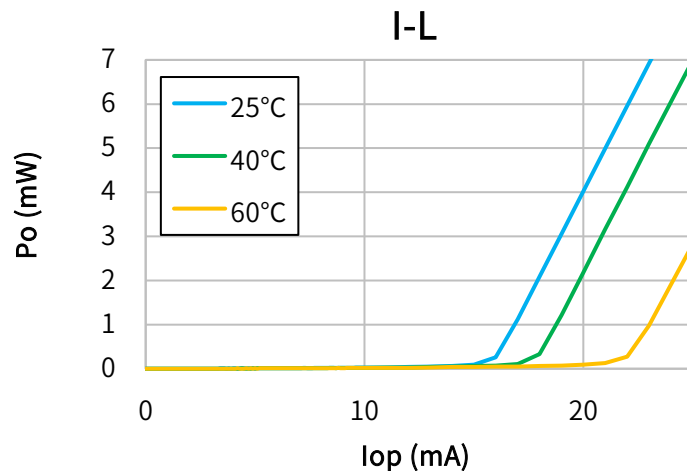


Characteristics

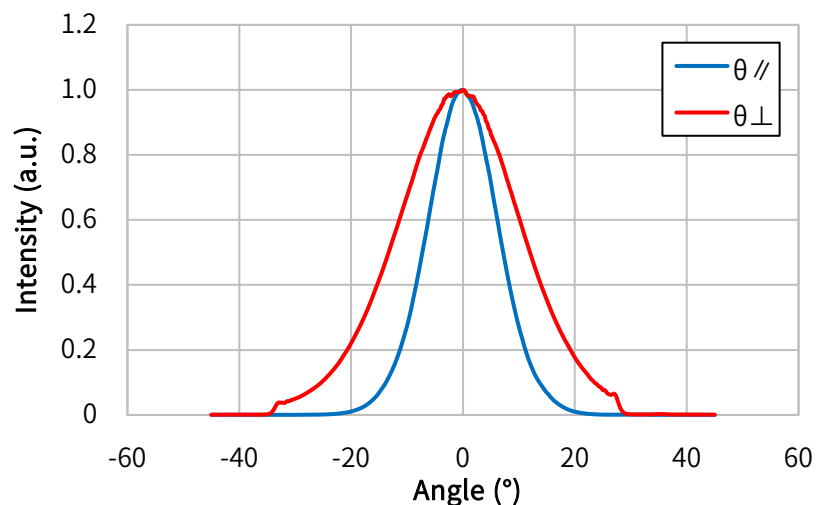
(T_c=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	P _o =7mW	660nm
Output [Max]	—	7mW[10mW]
Threshold current	—	17mA
Operating current	P _o =7mW	26mA
Operating voltage	P _o =7mW	2.2V
Far Field (FWHM)	P _o =7mW	$\theta_{//}$ 13°, $\theta_{\perp}$ 28°
Terminal connections	No.1	
Package type	ϕ3.3	

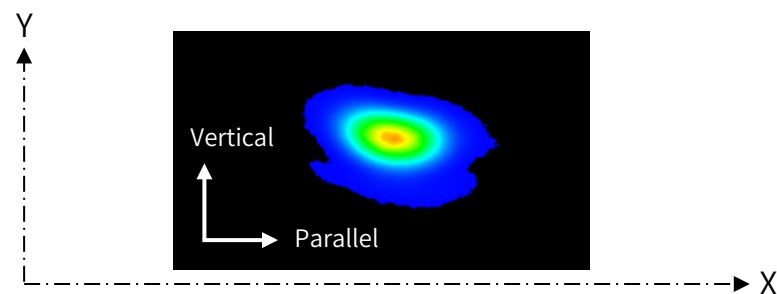
CW I-L, I-V Temperature



Far Field Pattern



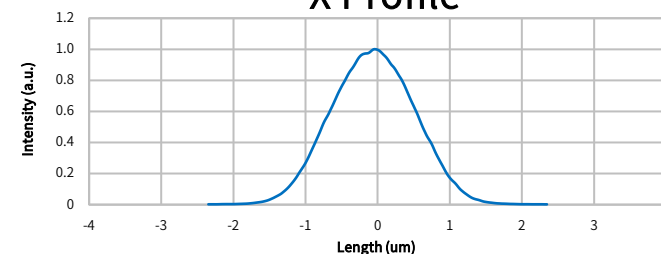
Near Field Pattern



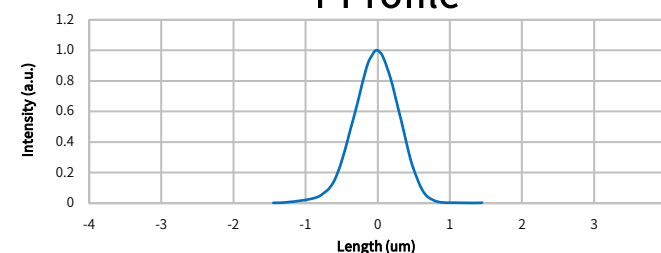
Emitter size

	FWHM (μ m)	1/e ² (μ m)
X	1.4	2.3
Y	0.7	1.2

X Profile



Y Profile



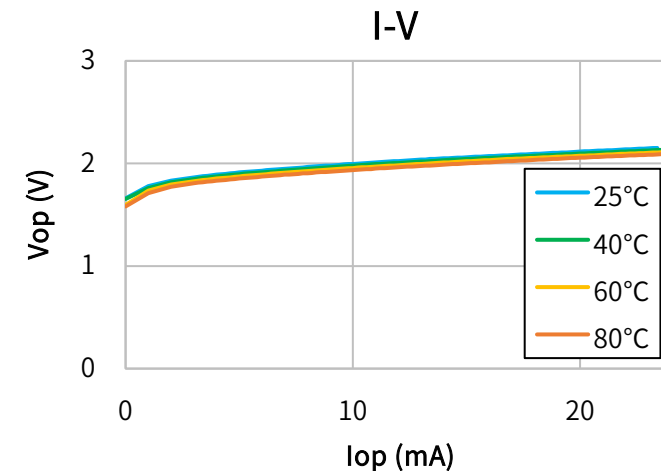
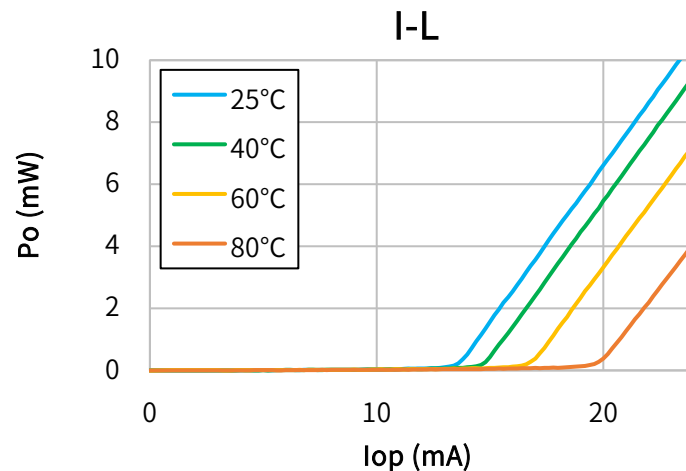


Characteristics

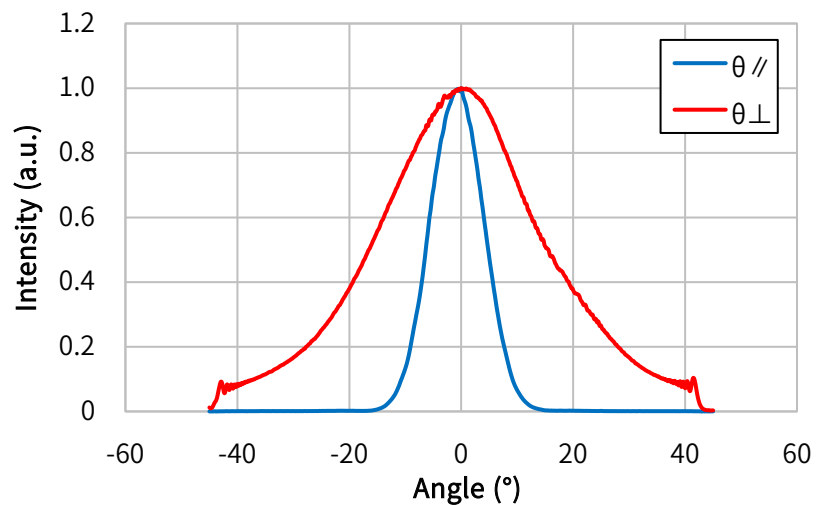
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=10mW	660nm
Output [Max]	—	10mW[12mW]
Threshold current	—	15mA
Operating current	Po=10mW	24mA
Operating voltage	Po=10mW	2.2V
Far Field (FWHM)	Po=10mW	$\theta_{//}$ 12°, $\theta_{\perp}$ 33°
Terminal connections	No.4	
Package type	Φ5.6	

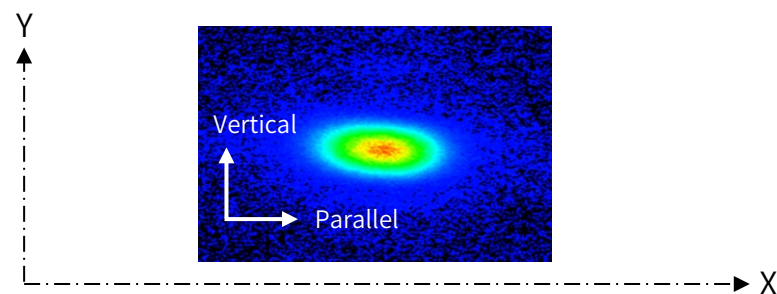
CW I-L, I-V Temperature



Far Field Pattern



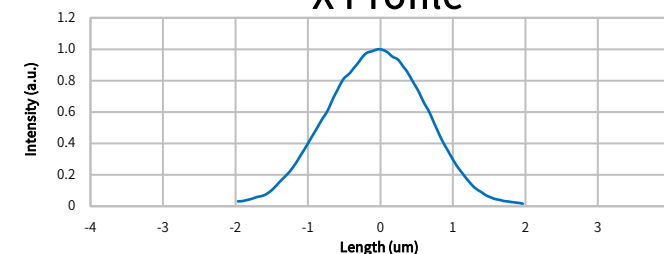
Near Field Pattern



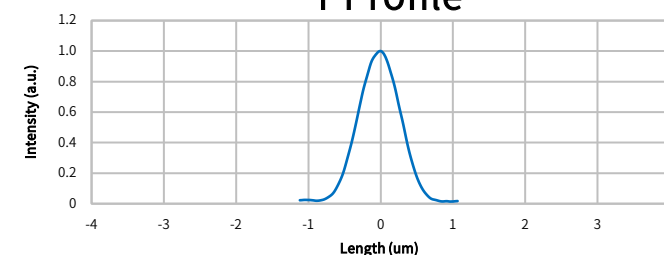
Emitter size

	FWHM (μ m)	$1/e^2$ (μ m)
X	1.6	2.7
Y	0.7	1.1

X Profile



Y Profile





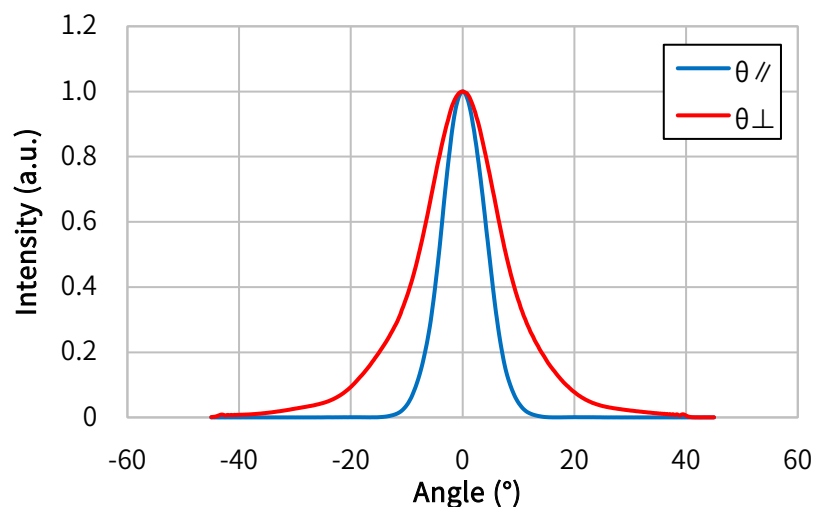
Characteristics

(Tc=25°C, CW)

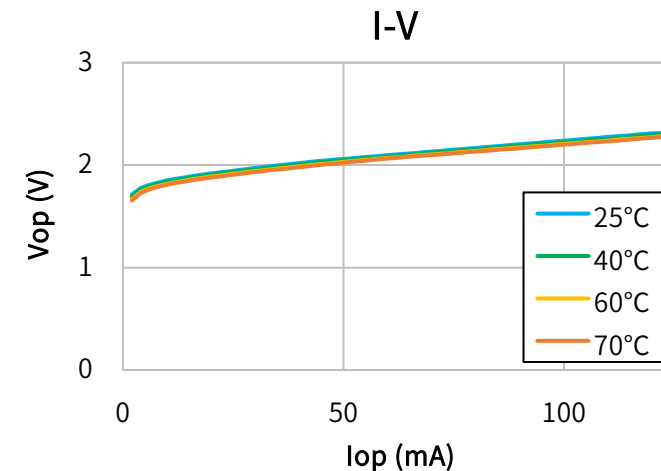
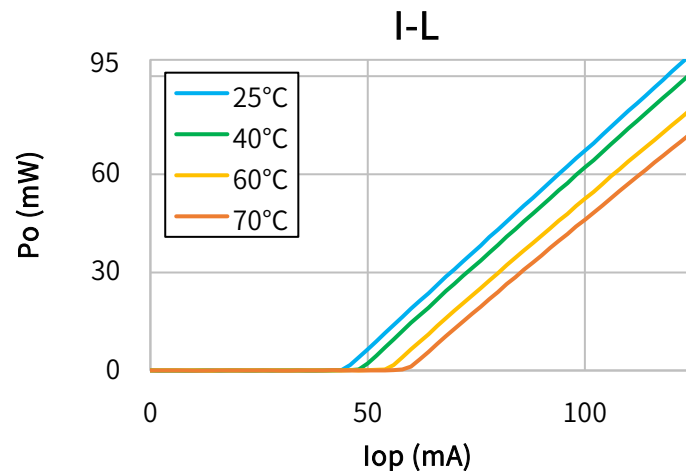
Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=95mW	660nm
Output [Max]	—	95mW [100mW]
Threshold current	—	40mA
Operating current	Po=95mW	122mA
Operating voltage	Po=95mW	2.4V
Far Field (FWHM)	Po=95mW	$\theta_{//}$ 10°, $\theta_{\perp}$ 15.5°

Terminal connections	No.3
Package Type	ϕ5.6

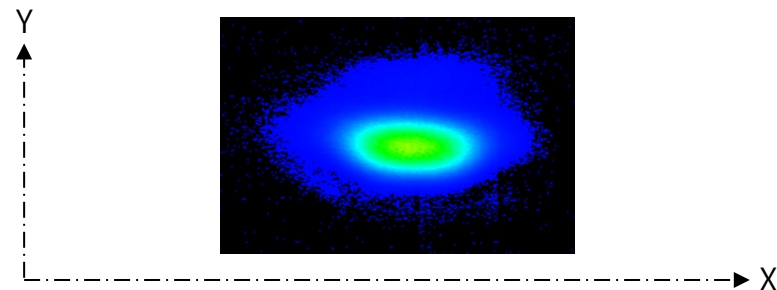
Far Field Pattern



CW I-L, I-V Temperature



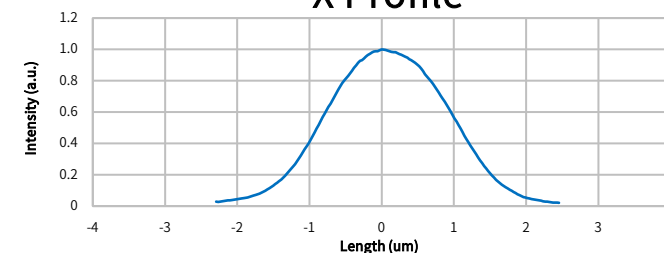
Near Field Pattern



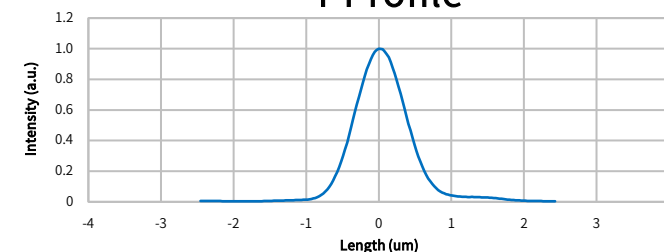
Emitter size

	FWHM (μ m)	$1/e^2$ (μ m)
X	2.0	3.2
Y	0.8	1.3

X Profile



Y Profile



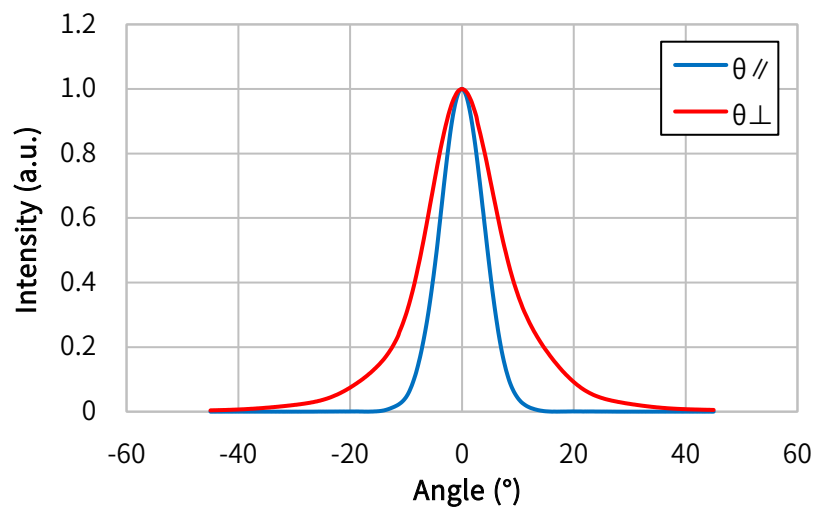


Characteristics

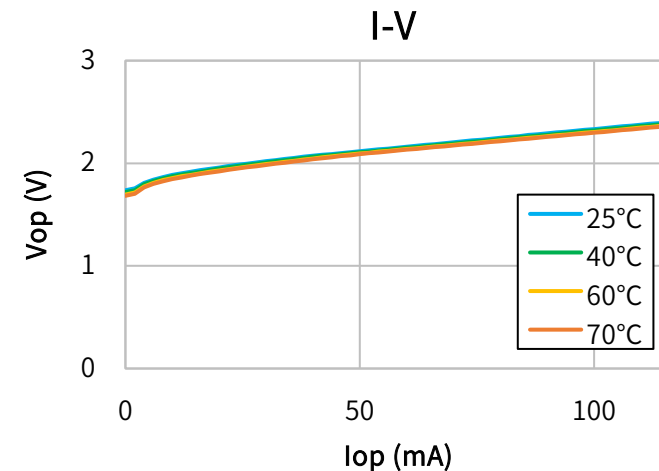
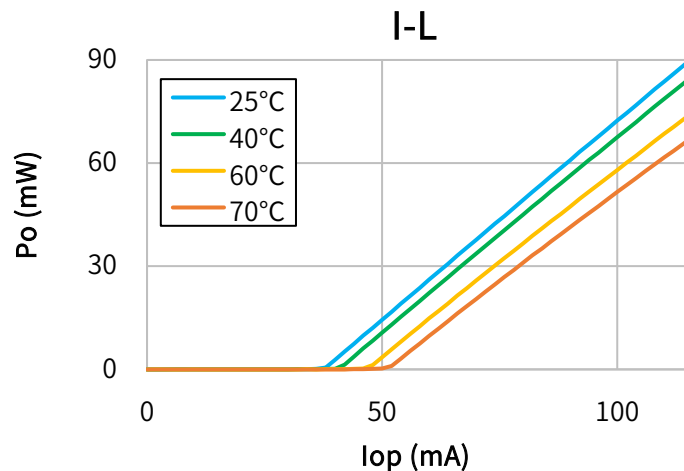
(Tc=25°C, CW)

Item	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=90mW	661nm
Output [Max]	—	90mW [100mW]
Threshold current	—	42mA
Operating current	Po=90mW	120mA
Operating voltage	Po=90mW	2.3V
Far Field (FWHM)	Po=90mW	$\theta_{//}$ 9.3°, $\theta_{\perp}$ 15°
Terminal connections	No.6	
Package type	t1.8	

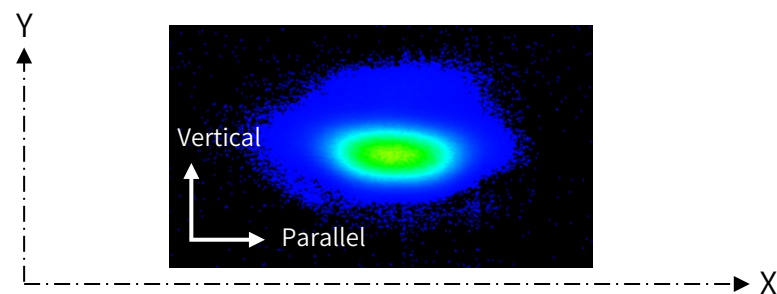
Far Field Pattern



CW I-L, I-V Temperature



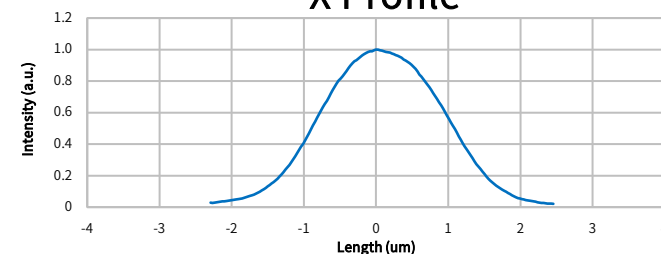
Near Field Pattern



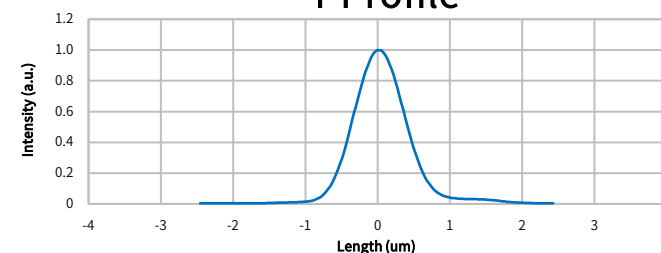
Emitter size

	FWHM (μm)	1/e ² (μm)
X	2.0	3.2
Y	0.8	1.3

X Profile



Y Profile



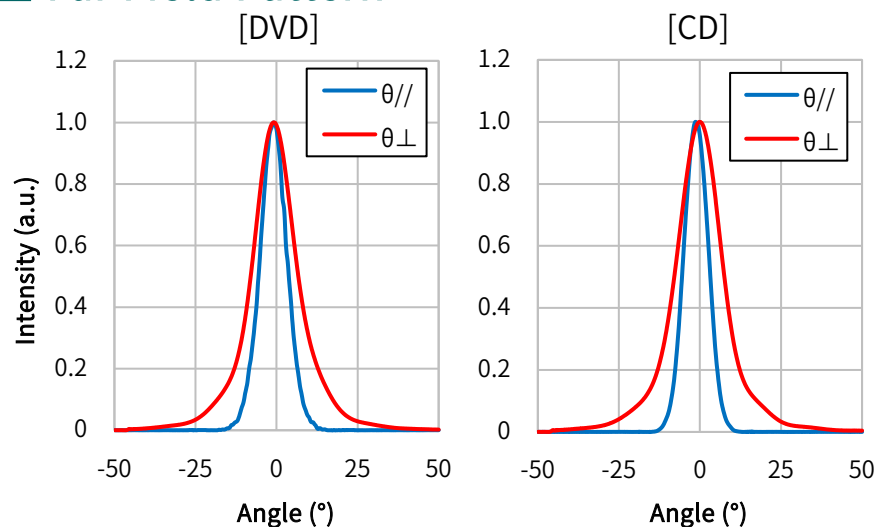


Characteristics

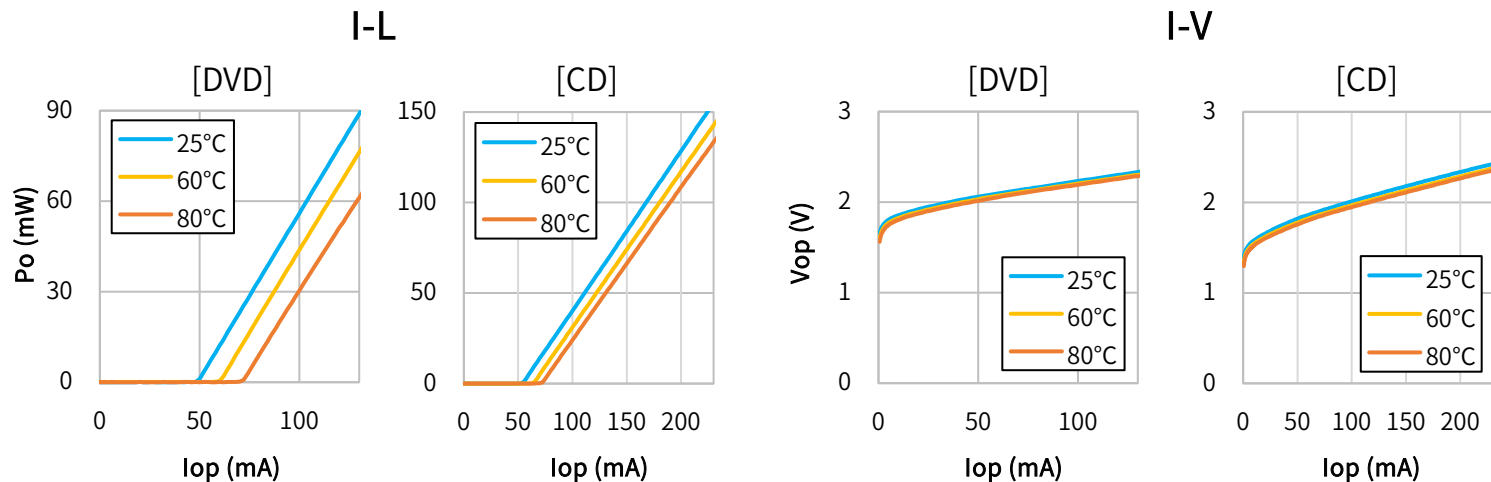
(Tc=25°C, CW)

Item	DVD Laser Diode		CD Laser Diode	
	Conditions	Characteristic value (TYP.)	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=90mW	661nm	Po=150mW	785nm
Output [Max]	—	90mW [90mW]	—	150mW [160mW]
Threshold current	—	50mA	—	53mA
Operating current	Po=90mW	134mA	Po=150mW	215mA
Operating voltage	Po=90mW	2.4V	Po=150mW	2.4V
Far Field (1/e ²)	Po=90mW	$\theta_{//}$ 8.0-11.5 $\theta_{\perp}$ 7.0-10.5	Po=150mW	$\theta_{//}$ 13.5-19.0 $\theta_{\perp}$ 13.0-18.0
Terminal connections	No.7			
Package type	t1.8			

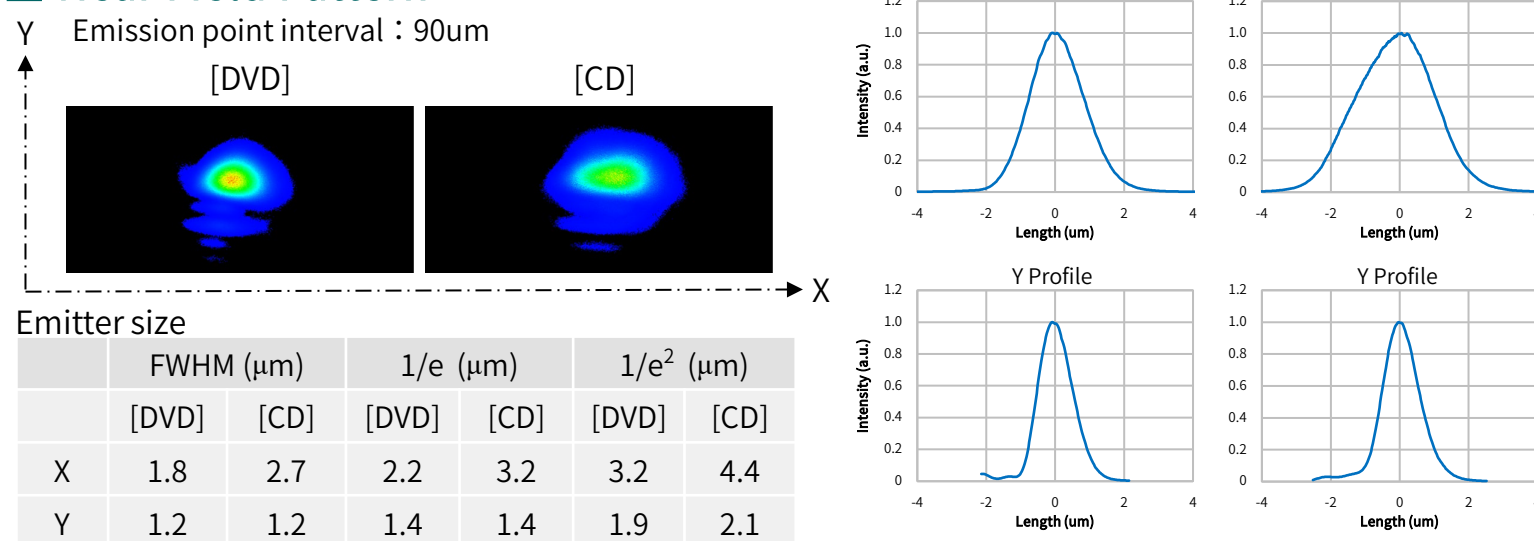
Far Field Pattern



CW I-L, I-V Temperature



Near Field Pattern



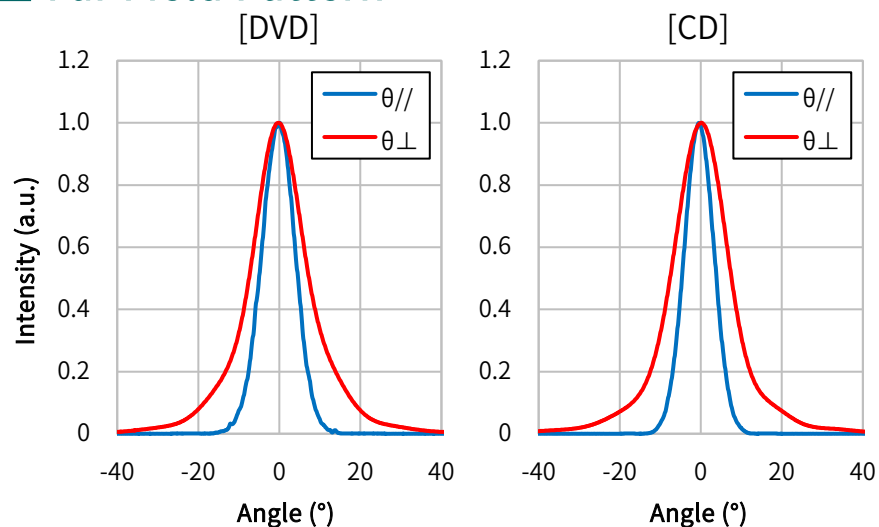


Characteristics

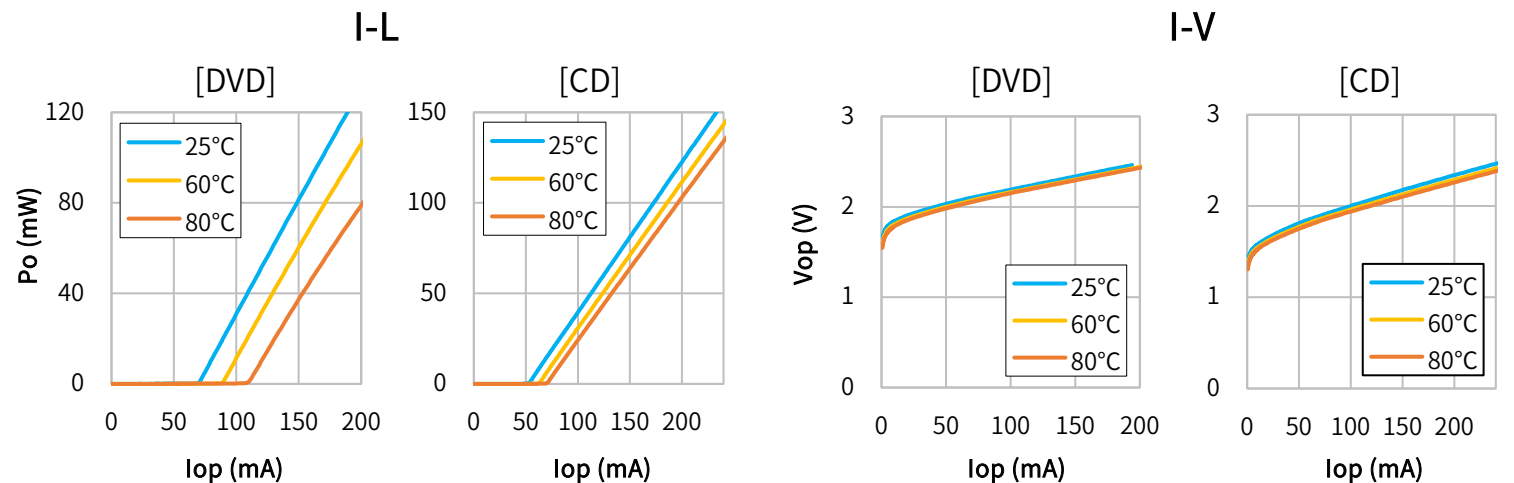
(Tc=25°C, CW)

Item	DVD Laser Diode		CD Laser Diode	
	Conditions	Characteristic value (TYP.)	Conditions	Characteristic value (TYP.)
Wavelength (Peak)	Po=120mW	661nm	Po=150mW	785nm
Output [Max]	—	120mW [125mW]	—	150mW [200mW]
Threshold current	—	68mA	—	55mA
Operating current	Po=120mW	189mA	Po=150mW	230mA
Operating voltage	Po=120mW	2.5V	Po=150mW	2.4V
Far Field (1/e ²)	Po=120mW	$\theta_{//}$ 8.5-11.5 $\theta_{\perp}$ 7.0-10.5	Po=150mW	$\theta_{//}$ 14.0-19.0 $\theta_{\perp}$ 13.0-18.0
Terminal connections	No.7			
Package type	t1.8			

Far Field Pattern

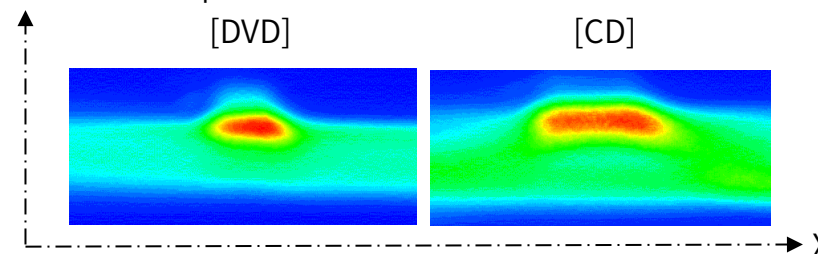


CW I-L, I-V Temperature



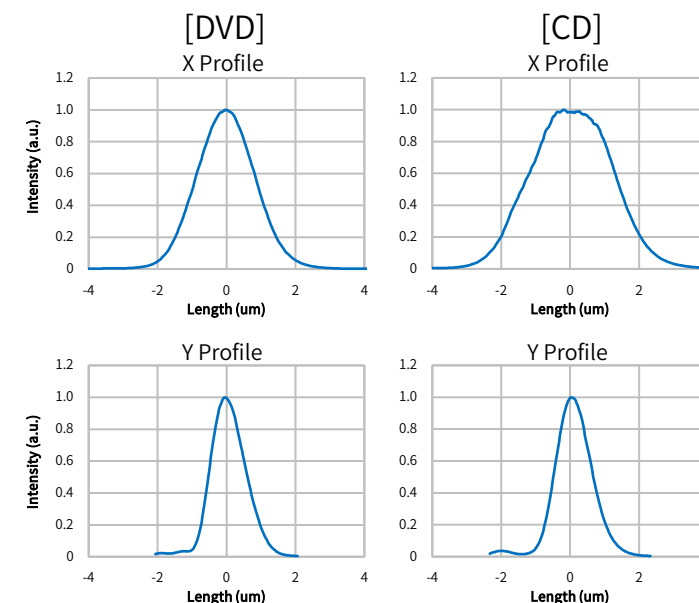
Near Field Pattern

Emission point interval : 110μm



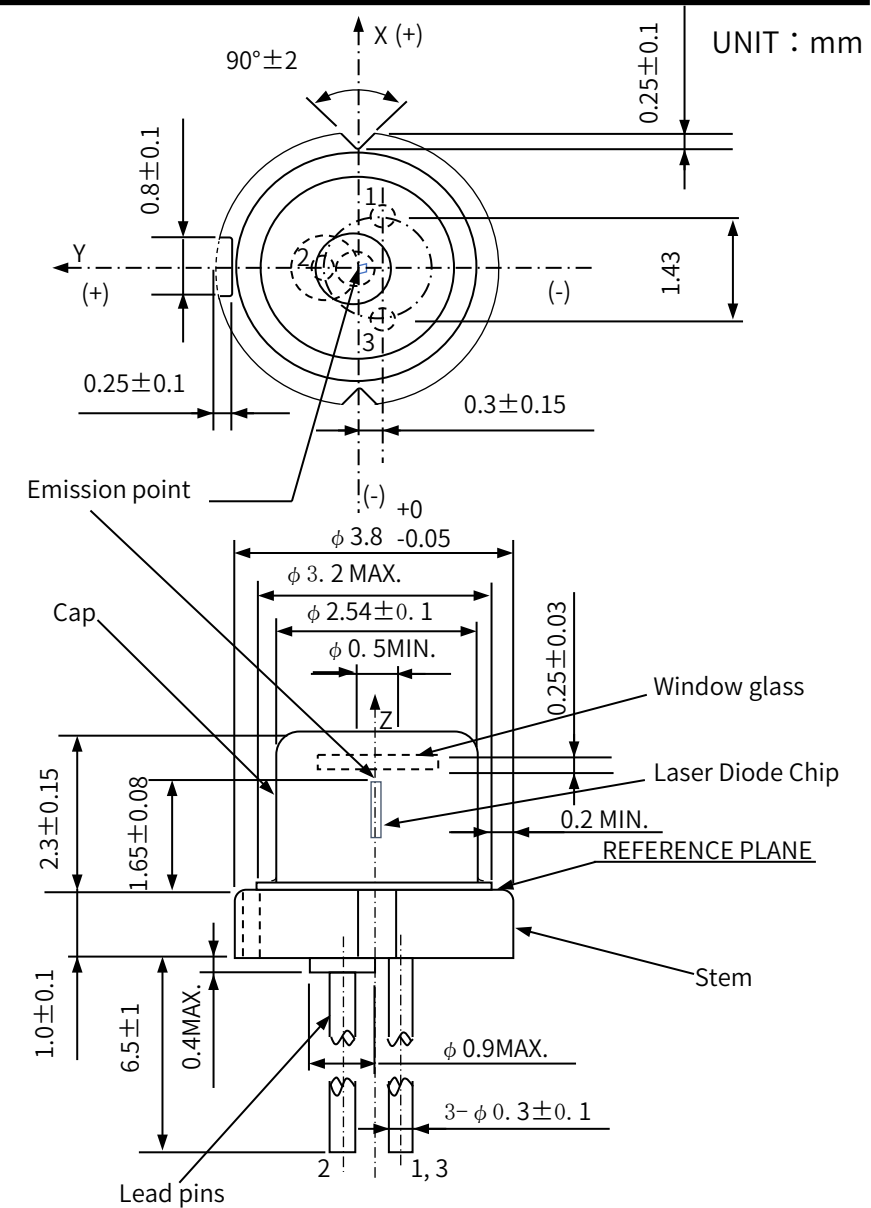
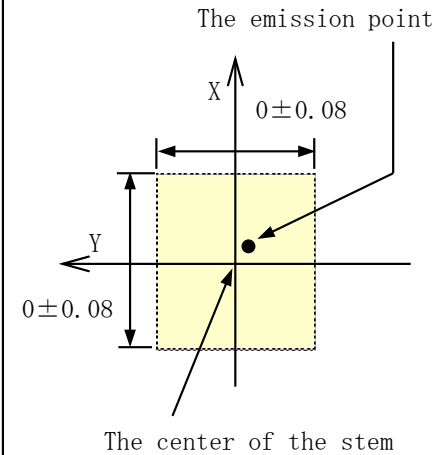
Emitter size

	FWHM (μm)		1/e (μm)		1/e ² (μm)	
	[DVD]	[CD]	[DVD]	[CD]	[DVD]	[CD]
X	2.0	2.9	2.4	3.4	3.4	4.5
Y	1.3	1.2	1.5	1.4	2.1	2.0



Package

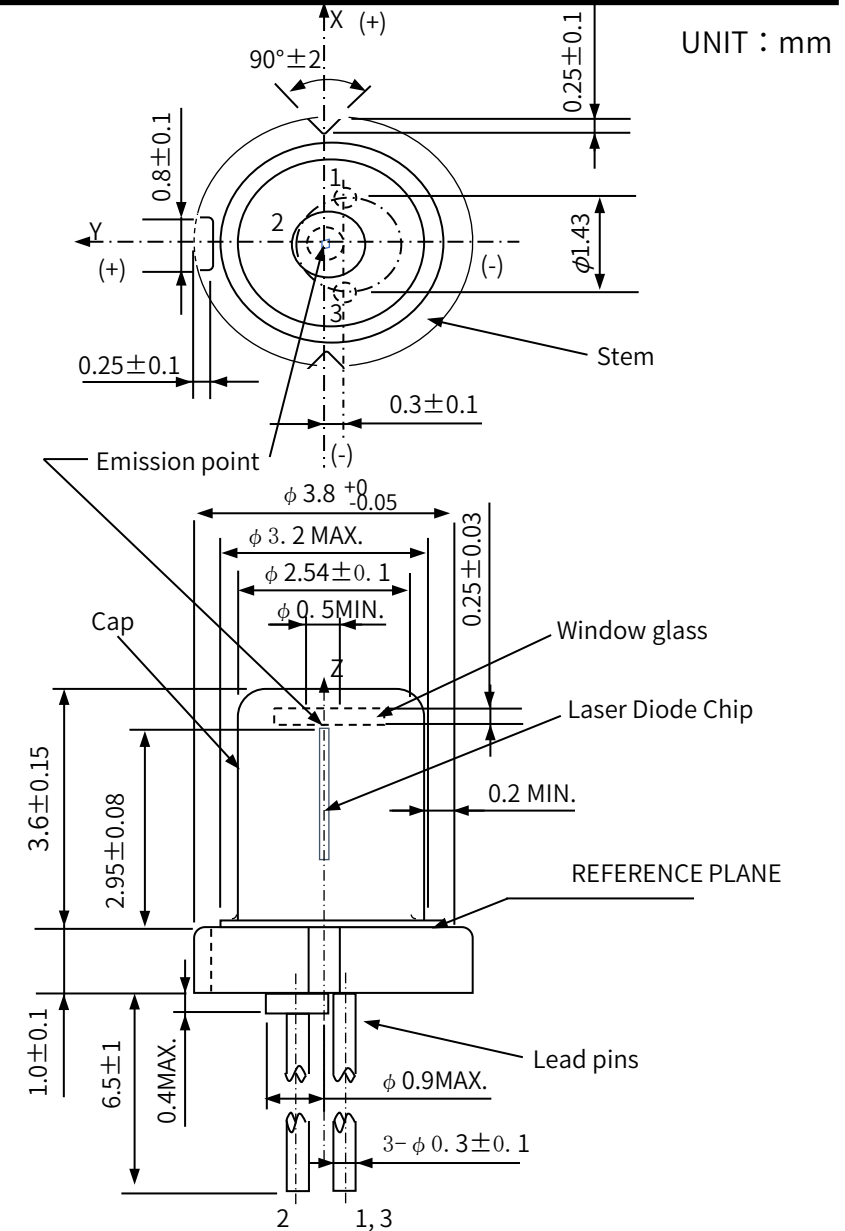
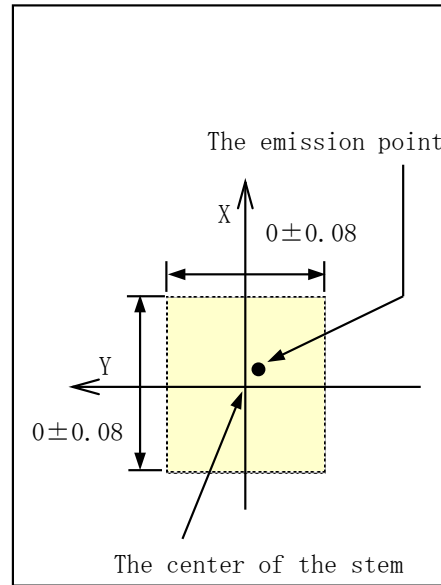
ϕ 3.8 TO-CAN



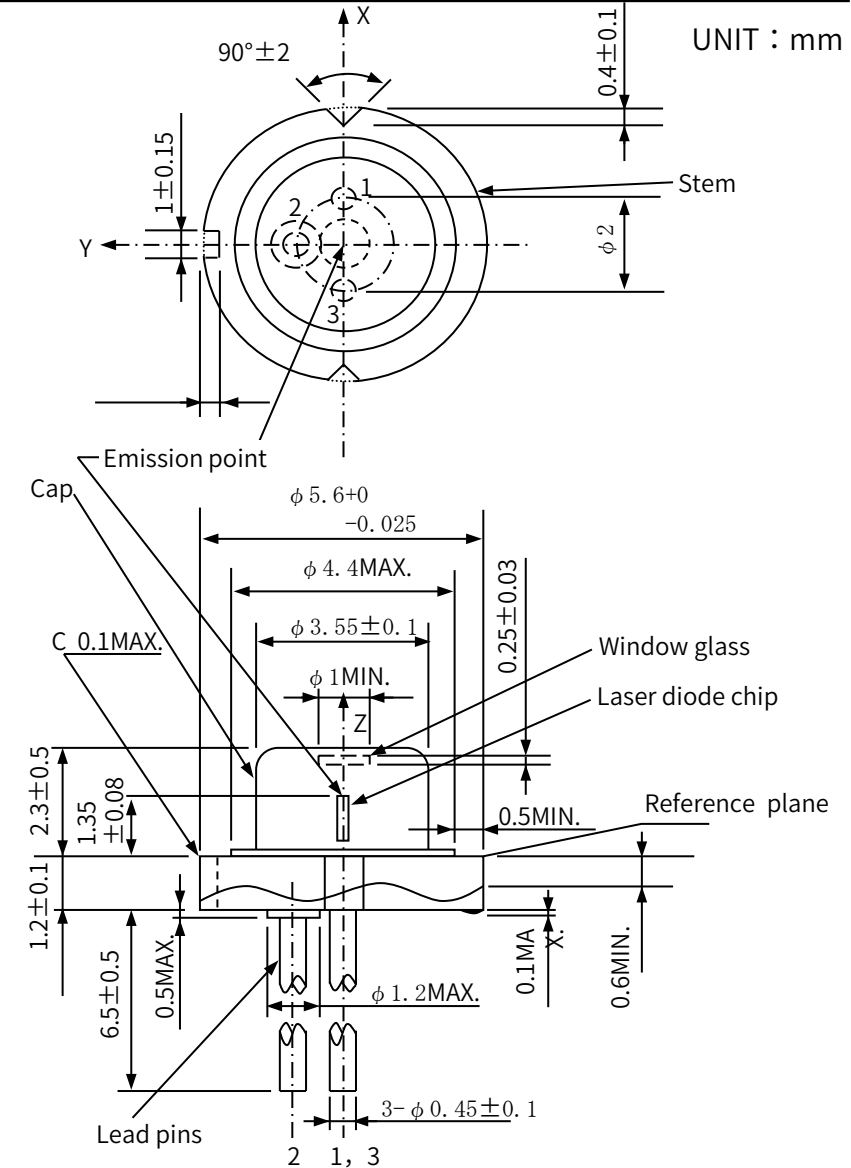
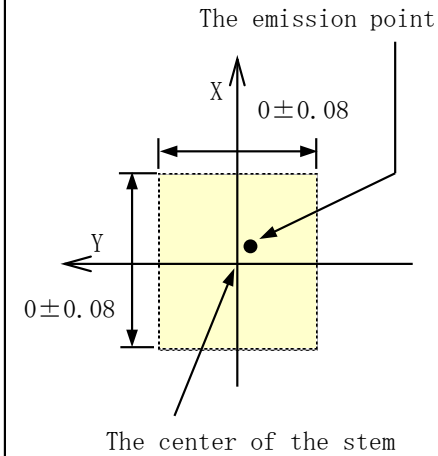
Package

 $\phi 3.8$ TO-CAN
High Cap Model

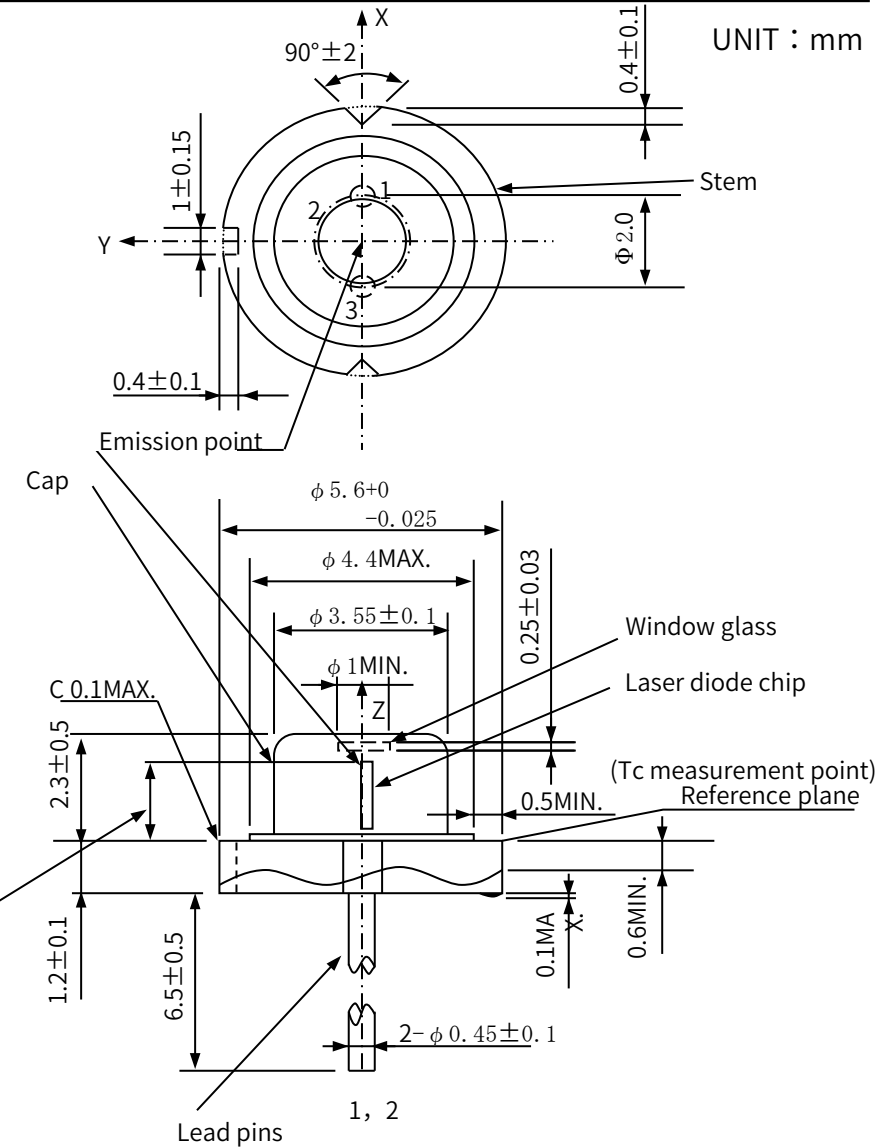
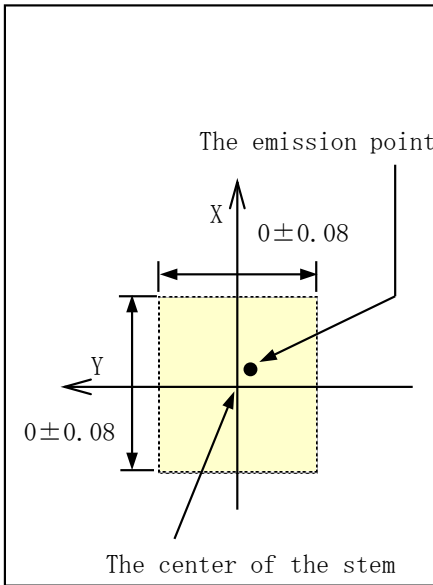
This specification is only applied to GH0631IA5G.



Package

 $\phi 5.6$ TO-CAN

Package

 $\phi 5.6$ TO-CAN

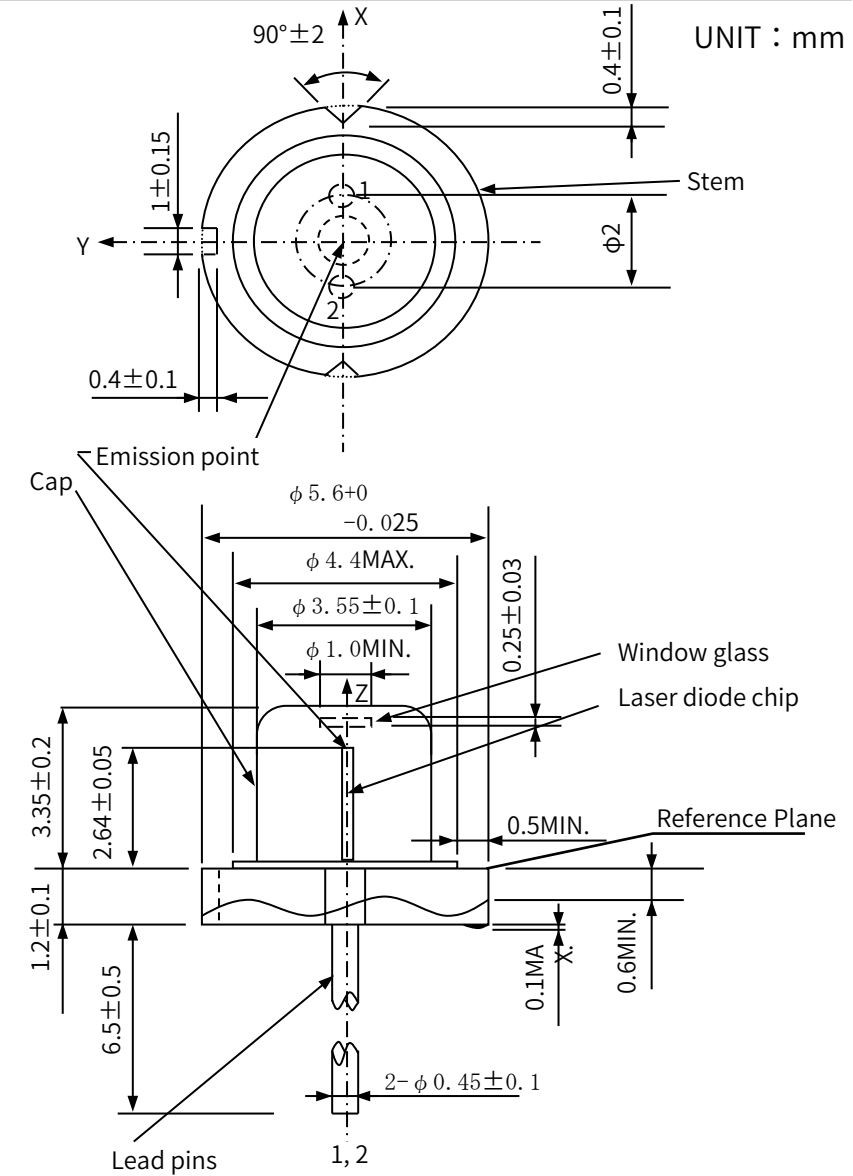
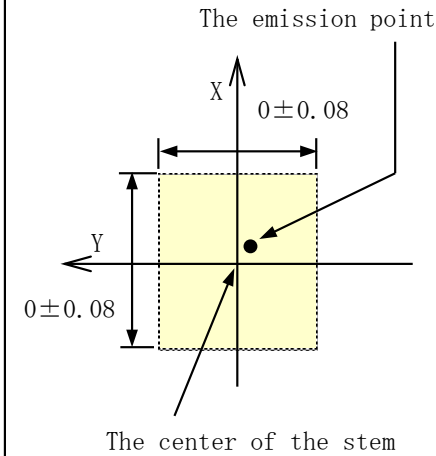
* Table 1

* Table 1 Light emitting point height by model UNIT:mm

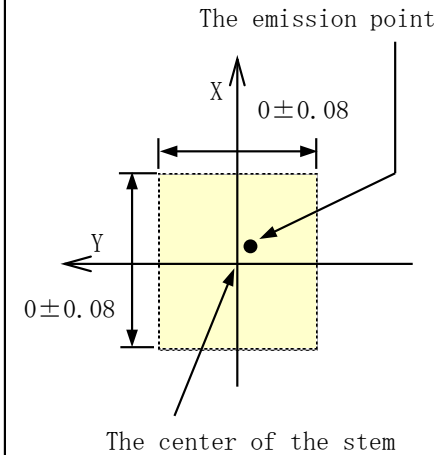
Model number		Height of the light emitting point
GH0382AA2G	UV	1.50 $\pm$ 0.08
GH0393AA2G	UV	1.35 $\pm$ 0.08
GH04W10A2GC	UV	1.35 $\pm$ 0.08
GH0406AA2G	UV	1.35 $\pm$ 0.08
GH04V01A2GC	UV	1.35 $\pm$ 0.08
GH04I01A2G	Blue	1.50 $\pm$ 0.08
GH04C01B2G	Blue	1.50 $\pm$ 0.08
GH04550A2G	Blue	1.35 $\pm$ 0.08
GH0637AA2G	Red	1.65 $\pm$ 0.08

Package

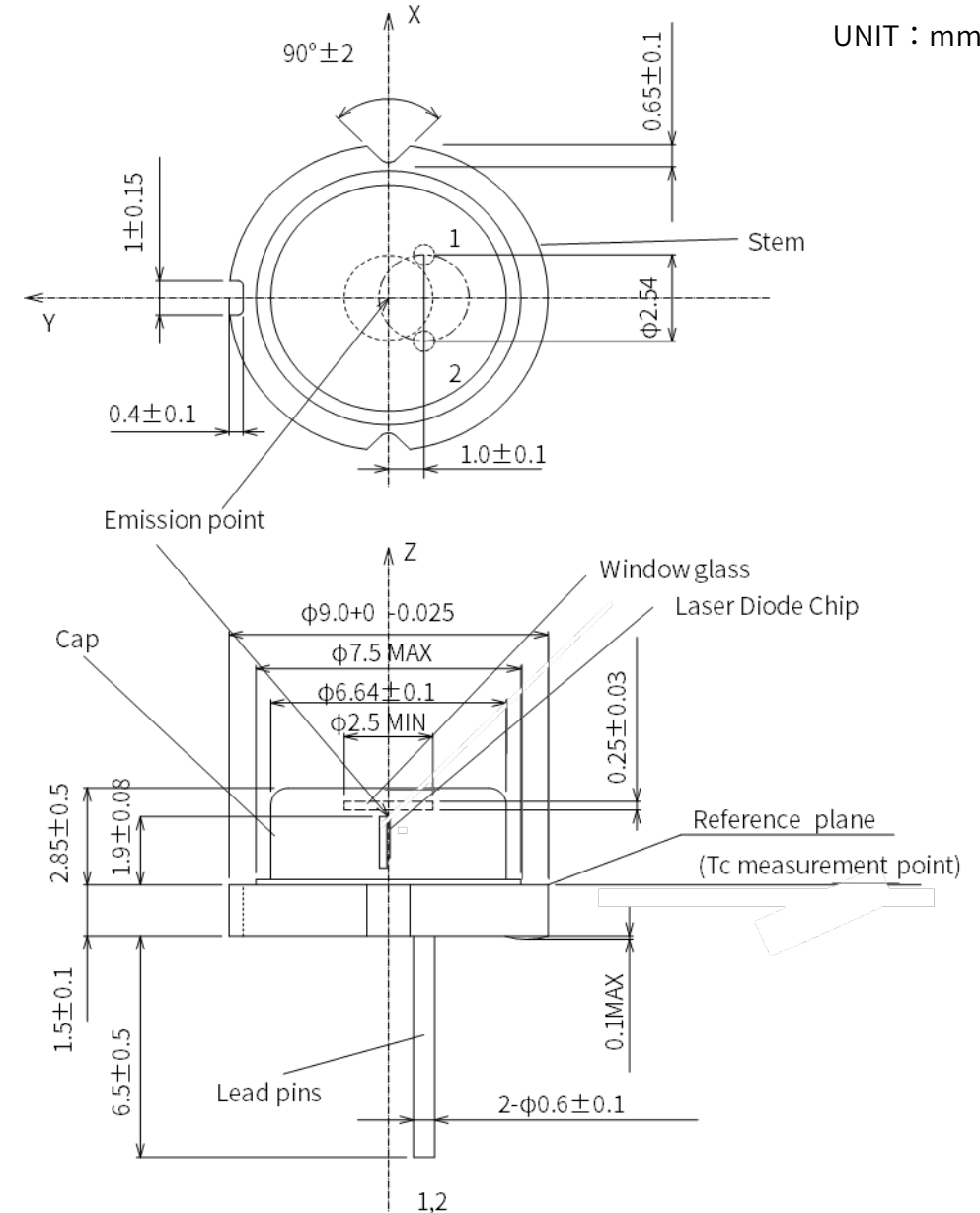
$\phi 5.6$ TO-CAN
High Cap Model



Package

 $\phi 9.0$ TO-CAN

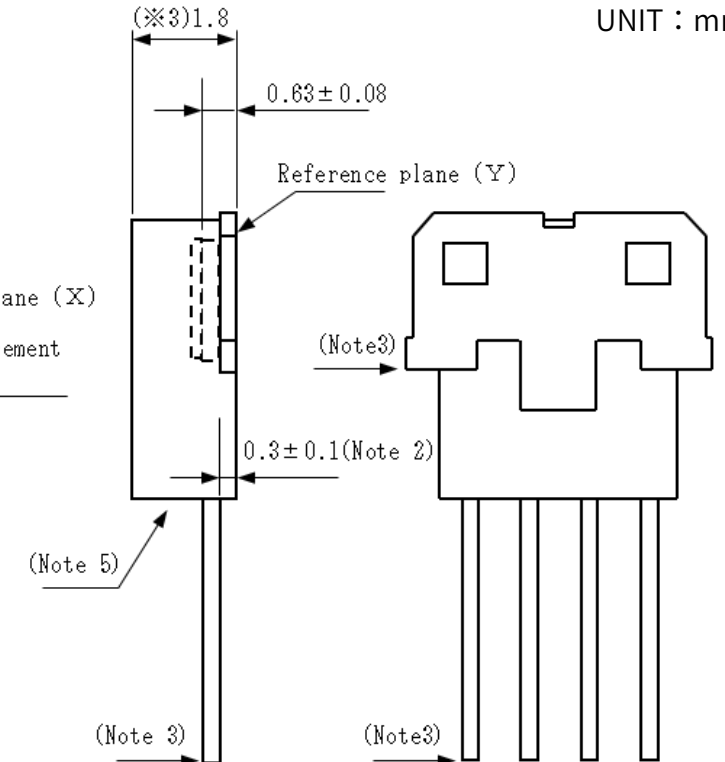
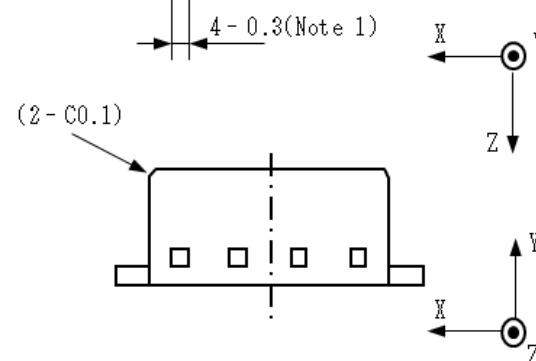
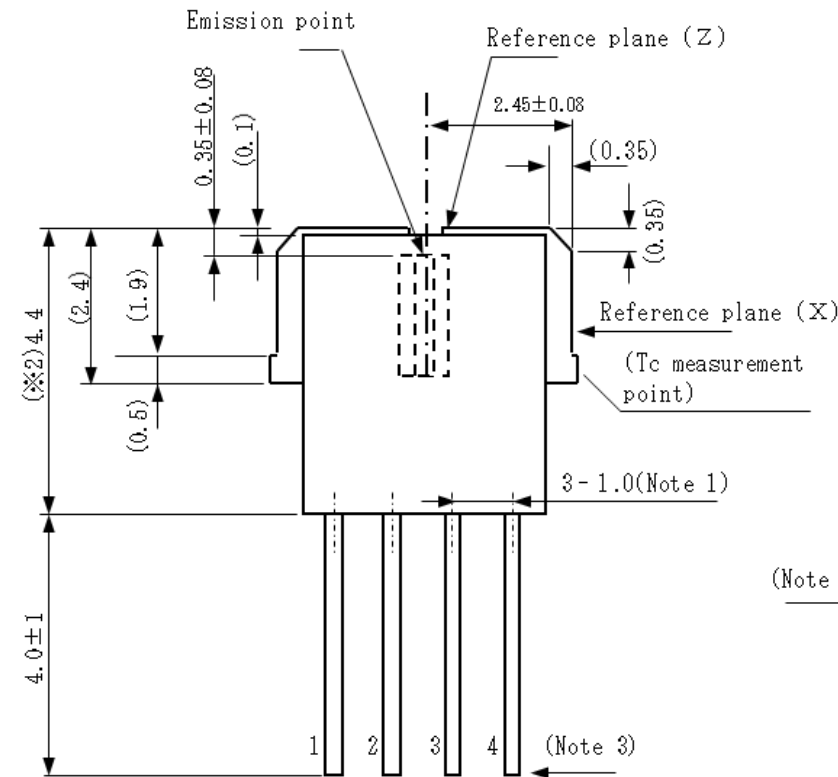
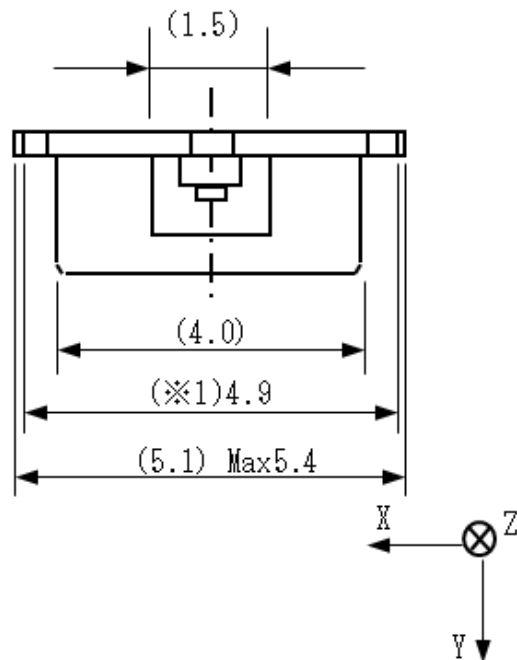
UNIT : mm



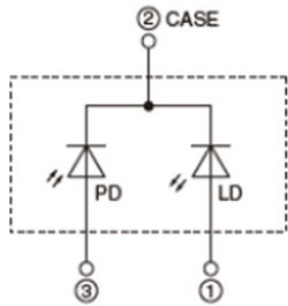
UNIT : mm

Package

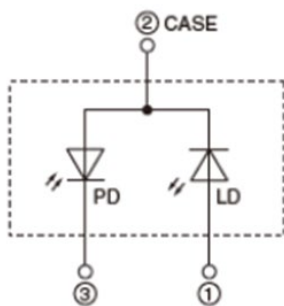
t1.8mm Frame



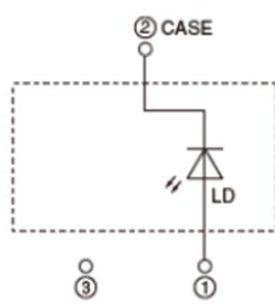
No.1



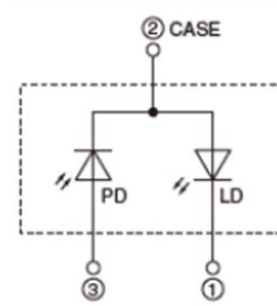
No.2



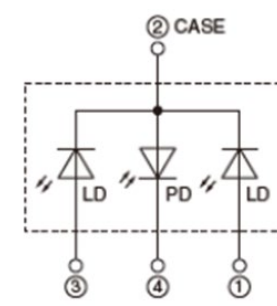
No.3



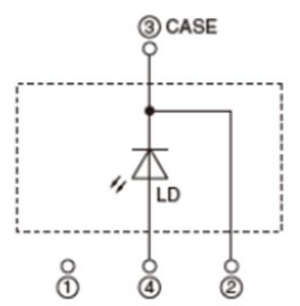
No.4



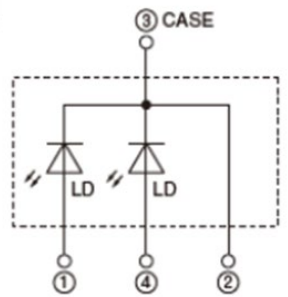
No.5



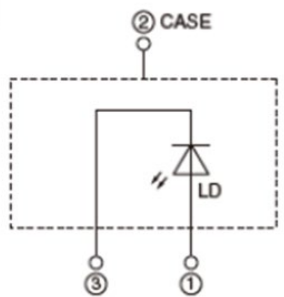
No.6



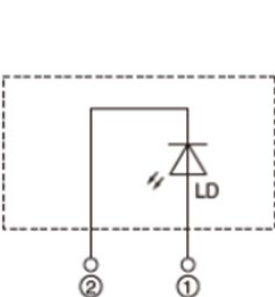
No.7



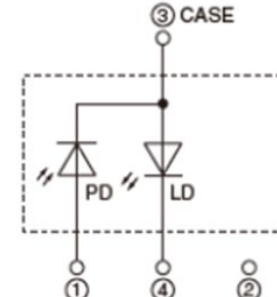
No.8



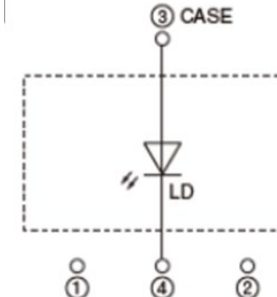
No.9



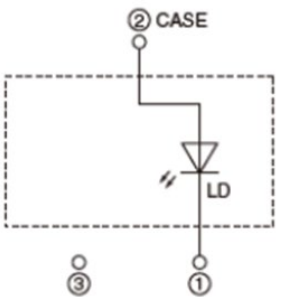
No.10



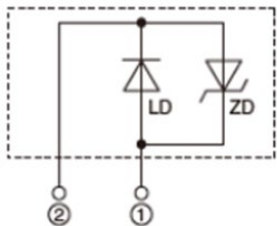
No.11



No.12



No.13



Cautions

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 - ・ 工作機器 ・ A V 機器 ・ 家電製品

なお、上記の用途であっても③または④に記載の機器に該当する場合は、それぞれ該当する注意点を遵守願います。

- ③機能・精度等において高い信頼性・安全性が必要とされる下記の用途に本製品を使用される場合は、これらの機器の信頼性および安全性維持のために、お客様の責任において機器側のフェールセーフ設計や冗長設計の措置を講じる等、システム・機器全体の安全設計にご配慮頂いた上で本製品をご使用ください。
 - ・ 運送機器（航空機、列車、自動車等）の制御と各種安全性にかかわるユニット
 - ・ 交通信号機 ・ ガス漏れ検知遮断器 ・ 防災防犯装置 ・ 各種安全装置 等
- ④本製品は民生用として設計されており、製造面・品質面についても民生用としての管理をしています。機能・精度等において極めて高い信頼性・安全性が必要とされる以下の用途にはご使用にならないで下さい。
 - ・ 宇宙機器 ・ 通信機器 [幹線] ・ 原子力制御機器 ・ 医療機器 等

- ⑤上記①、②、③、④のいずれに該当するか疑義のある場合は弊社販売窓口までご確認願います。

Cautions

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尚、本製品の故障および事故について以下の内容は、その責を負わないものとします。

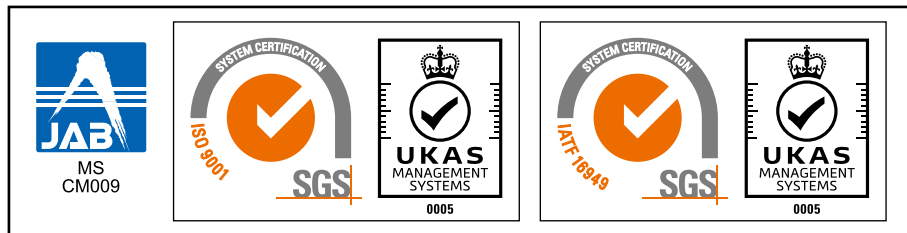
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- ② 故意、過失、取扱い不良によるもの。
- ③ 本製品に接続、または取り付けた機器に起因するもの。
- ④ 本製品の分解・改造・改変等によるもの。
- ⑤ 据え付け工事不備によるもの。
- ⑥ 天災地変、火災、水害または、これに準ずる災害によるもの。
- ⑦ 異常電圧、異常電磁波、類焼等外部要因に起因するもの。
- ⑧ 特殊な環境（工場、沿岸地区、温泉地帯など）に起因するもの。
- ⑨ 当社出荷当時に実用化されていた技術では予見することが不可能な現象に起因するもの。
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製品及び製造での環境保全に積極的に取り組んでいます。

事業所名	登録番号	登録活動範囲
シャープ福山レーザー株式会社	JQA-EM7239	電子デバイスの設計・開発及び製造



シャープ株式会社の下記関係事業所は、品質マネジメントシステム国際規格適合組織として登録されています。

審査登録機関：SGS ジャパン株式会社 ビジネス アシュアランス

グループ名	登録番号	登録活動範囲
シャープ福山レーザー株式会社	ISO9001 JP24/00000286 IATF16949 JP24/00000285 (IATF 0548708)	半導体デバイスのためのウエハプロセス製造及び半導体レーザーの設計と製造

■お問い合わせ先

シャープ福山レーザー株式会社 〒721-8522 広島県福山市大門町旭1番地 ☎(084)943-3131 (大代)

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