

1.5 μ m Gain Chip for external cavity laser AE5T310BY10P (chip on sub-mount)

AE5T310BY10P is 1.5 μ m InGaAsP / InP Gain Chip for External Cavity Laser developed as a light source for optical fiber communication or optical sensing.

◆ FEATURES

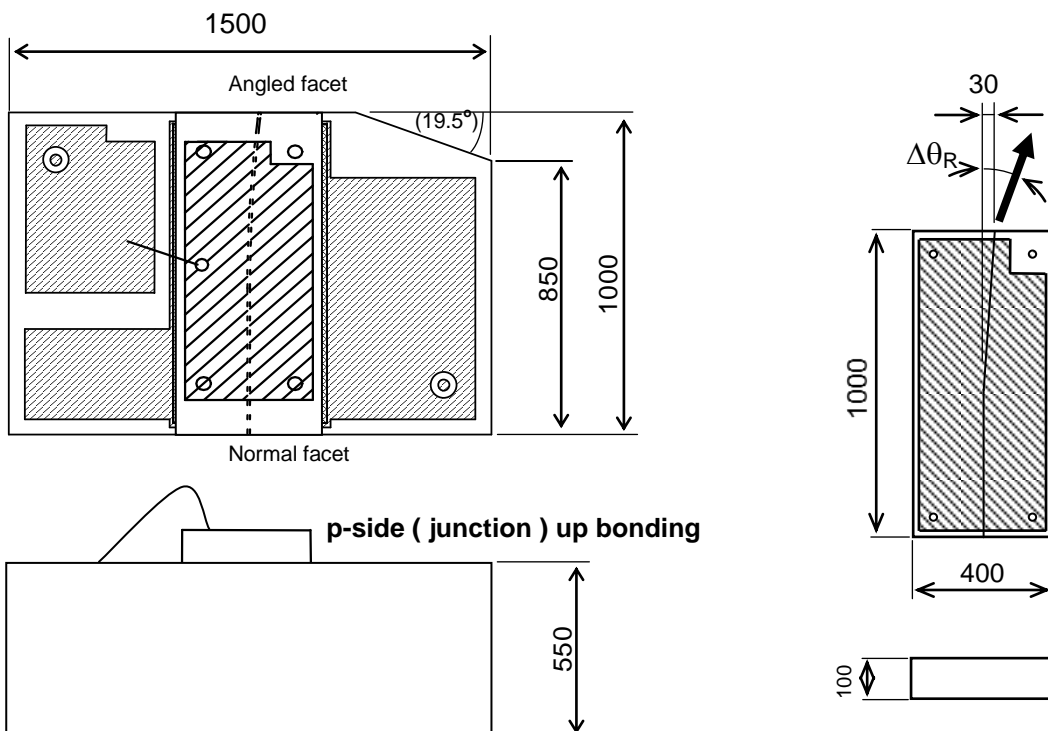
- Broad band: >100nm tuning range
- High Optical Output Power:
>40mW with external cavity
- Low spectral ripple
- Bare chip shipment is also available
- Normal facet reflectance;
Low reflection coating (LR 6%)
- Angled facet reflectance;
Anti-reflection coating (AR < 0.01%)

◆ ABSOLUTE MAXIMUM RATINGS (T_{chip}=25°C)

Item	Symbol	Rating	Unit
Forward Current	I _F	500	mA
LD Reverse Voltage (T _{LD} =25°C)	V _R	2	V
Operating Case Temperature*	T _C	15~45	°C
Storage Temperature	T _{std}	-40~85	°C
Process/Soldering Temp. vs Time			
Maximum duration 20s	-	300	°C
Maximum duration 2hour	-	200	°C
Maximum duration 100hour	-	120	°C
ESD(Human Body Model)	ESD	500	V

*No condensation

◆ DIMENSIONS (Unit : μ m)



◆ OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{LD}=25^{\circ}\text{C}$, $T_C=25^{\circ}\text{C}$)

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	IF =200 mA, pulsed (tw=50 μs)		1.4	2.0	V
ASE Output Power	P_{ASE}	IF =200 mA, pulsed (tw=50 μs)	1	5		mW
Center Wavelength	λ_C	IF =100 mA, pulsed (tw=50 μs)	1480		1540	nm
ASE Ripple	M	IF =100 mA, CW at $\lambda=1550$ nm			2.0	dB
Beam Exit Angle	$\Delta\theta_R$	IF =200 mA CW	19	20	21	deg.
Beam Divergence Angle (FAHM) transverse (perpendicular), Normal Facet	Θ_t^{NOR}	IF =200 mA CW	15	20	25	deg.
Beam Divergence Angle (FAHM) lateral (parallel), Normal Facet	Θ_p^{NOR}	IF =200 mA CW	17	20	23	deg.
Beam Divergence Angle (FAHM) transverse (perpendicular), Angled Facet	Θ_t^{ANG}	IF =200 mA CW	26	29	32	deg.
Beam Divergence Angle (FAHM) lateral (parallel), Angled Facet	Θ_p^{ANG}	IF =200 mA CW	15	18	21	deg.

◆ TECHNICAL SPECIFICATIONS

Item	Symbol	Test condition	Min.	Typ.	Max.	Unit
Angled facet Reflectance	R^{ANG}	C-band		5×10^{-5}	10^{-4}	
Normal facet Reflectance	R^{NOR}	C-band	5	6	7	%
Chip Length			0.98	1.00	1.02	mm
Chip Width			0.38	0.40	0.42	mm
Chip Height			0.09	0.10	0.11	mm



CAUTION : Handle the fiber of the enclosed device(s) with extreme care ; glass fiber is subject to breakage if mishandled and permanent damage to the device may result. Do not pull the device by the fiber or protective sleeve.
Do not coil the fiber into a loop of than 30 mm in radius.

<p>SEMICONDUCTOR LASER</p>	
<p>AVOID EXPOSURE Invisible laser radiation is emitted from this aperture</p>	<p>INVISIBLE LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION</p>
<p>Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. This Product Complies with 21 CFR 1040.10 and 1040.11 Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan</p>	<p>OUTPUT POWER 500mW WAVELENGTH 0.80 to 1.80 μm CLASS IIIb LASER PRODUCT</p>

**ANRITSU CORPORATION
DEVICES SALES DEPARTMENT
ANRITSU DEVICES CO., LTD.
OVERSEAS MARKETING DEPT.**

Tel +81 46 296 6783 fax +81 46 225 8390
5-1-1 Onna, Atsugi-shi, Kanagawa
243-0032 Japan

URL: <https://www.anritsu.com/anritsu-devices>

This product and its manuals may require an Export License / Approval by the Government of the product's country of origin for re-export from your country. Before re-exporting the product or manuals, please contact us to confirm whether they are export-controlled items or not. When you dispose of export-controlled items, the products / manuals need to be broken / shredded so as not to be unlawfully used for military purpose.

Please contact following local office for the quotation and order.
Anritsu Corporation reserves the right to change the content of the catalog at any time without notice.

