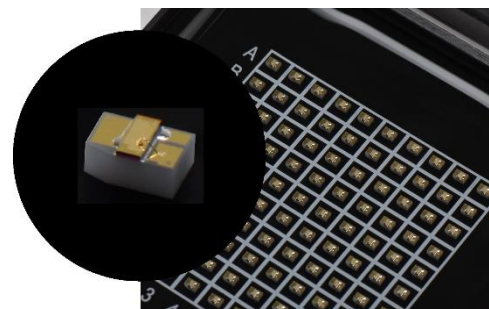


1.5 μm Gain Chip (chip on sub-mount) **AE5T310BY60P**

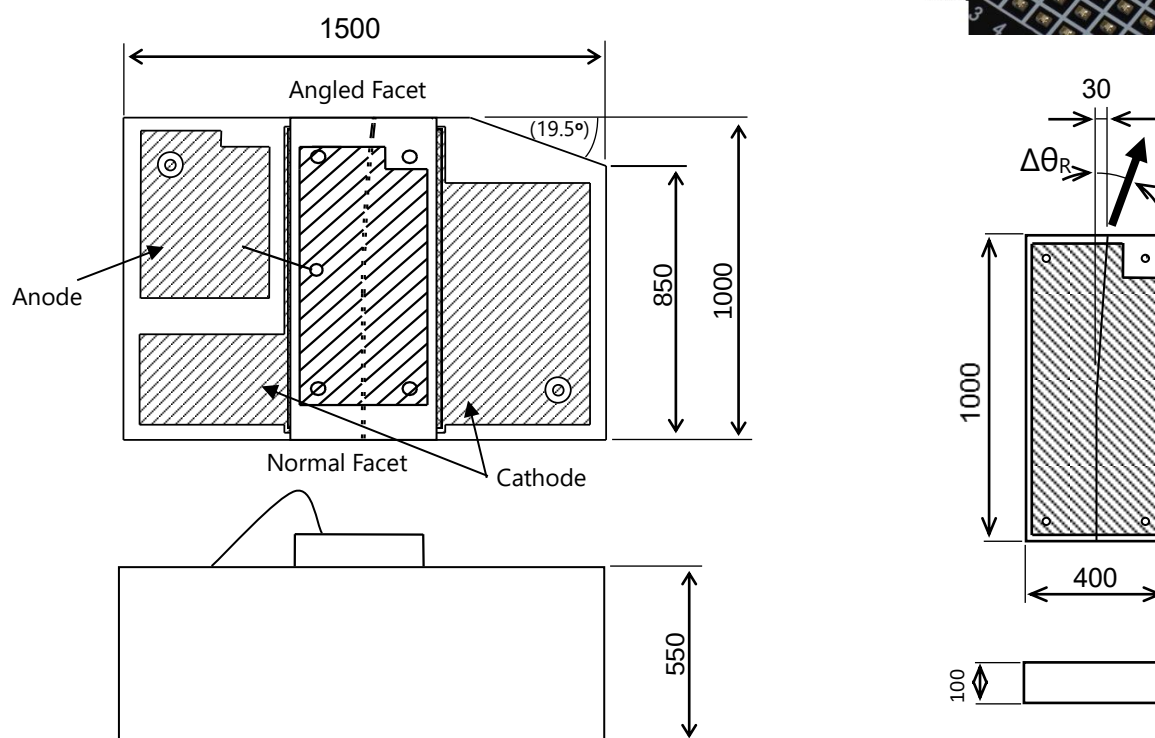
AE5T310BY60P is 1.5 μm InGaAsP / InP Gain Chip for External Cavity Laser developed as a light source for optical fiber communication or optical sensing.

FEATURES

- Wide bandwidth: >100 nm tuning range (CL-band)
- High Optical Output Power: >40 mW with external cavity
- Low spectral ripple
- Normal facet reflectance: LR (6%)



DIMENSIONS



(Unit : mm)

p-side (junction) up bonding

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
LD Forward Current	I_F	500	mA
LD Reverse Voltage	V_R	2	V
Operating Case Temperature*	T_C	+15 to +45	°C
Storage Temperature	T_{stg}	-40 to +85	°C
Process/Soldering Temp. vs Time	—	20	s
300°C		2	hour
200°C		100	hour
120°C			
ESD (Human Body Model)	ESD	500	V

*Excess over the absolute maximum ratings may cause device failure.

*1 No condensation

OPTICAL AND ELECTRICAL CHARACTERISTICS (T_{LD} = 25°C)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 200 mA, pulsed (tw = 50 μs)	–	1.4	2.0	V
ASE Output Power	P _{ASE}	I _F = 200 mA, pulsed (tw = 50 μs)	1	5	–	mW
Center Wavelength	λ _C	I _F = 100 mA, pulsed (tw = 50 μs)	1530	–	1590	nm
ASE Ripple	M	I _F = 100 mA, CW, λ _C = 1560 nm	–	–	2.0	dB
Beam Exit Angle	Δθ _R	I _F = 200 mA, CW	19	20	21	deg.
Beam Divergence Angle Transverse (perpendicular), Normal Facet	θ _t ^{NOR}	I _F = 200 mA, CW, FAHM	15	20	25	deg.
Beam Divergence Angle Lateral (parallel), Normal Facet	θ _p ^{NOR}	I _F = 200 mA, CW, FAHM	17	20	23	deg.
Beam Divergence Angle Transverse (perpendicular), Angled Facet	θ _t ^{ANG}	I _F = 200 mA, CW, FAHM	26	29	32	deg.
Beam Divergence Angle Lateral (parallel), Angled Facet	θ _p ^{ANG}	I _F = 200 mA, CW, FAHM	15	18	21	deg.

* Hermetic sealing is recommended for long term reliability.

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.

SEMICONDUCTOR LASER

AVOID EXPOSURE
Invisible laser radiation is emitted from this aperture

DANGER

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION

OUTPUT POWER 500mW
WAVELENGTH 0.80 to 1.80 μm
CLASS IIb LASER PRODUCT

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

ANRITSU CORPORATION

SENSING & DEVICES COMPANY SALES DEPT.

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

Tel +81 46 296 6783 Fax +81 46 225 8390
5-1-1 Onna, Atsugi-shi, Kanagawa
243-8555 Japan



Contact URL

<https://www.anritsu.com/en-gb/sensing-devices/contact-us>

Please read "Notes on Handling Optical Devices" before use.

<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>



■ 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.
■ Anritsu Corporation reserves the right to change the content of the catalog at any time without notice.