

1.31 μm SOA (Chip Carrier Type) AA3TB10EY

AA3TB10EY is 1.31 μm high saturation power, low polarization dependent gain and low noise SOA (Semiconductor Optical Amplifier) chip on carrier. The SOA chip is mounted on a 0.8 × 2.9 mm AlN sub-mount.

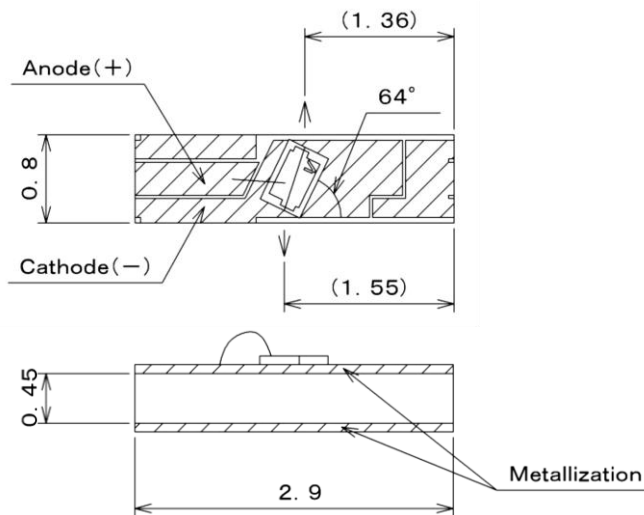
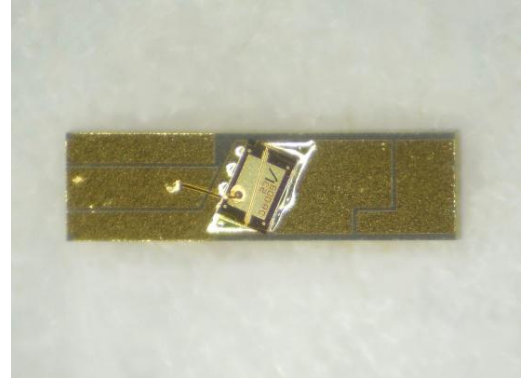
FEATURES

- Gain: 10 dB
- Polarization Dependent Gain (PDG): 1.5 dB
- Saturation Power: 11.5 dBm

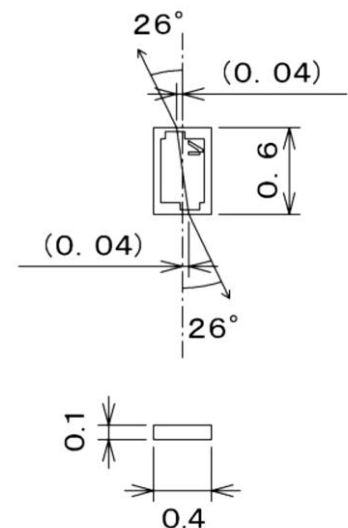
APPLICATION

- Optical transceiver
- Preamplifier

DIMENSIONS



(Unit : mm)



(Enlarged view of the SOA chip)

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
SOA Forward Current	I_F	200	mA
SOA Reverse Voltage	V_R	2	V
Storage Temperature*1	T_{stg}	-40 to +85	°C
Process/Soldering Temp. vs Time	—		
300°C		20	s
200°C		2	hour
120°C		100	hour
ESD (Human Body Model)	ESD	500	V

*Exceeding the absolute maximum ratings may cause device failure.

*1 No condensation

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

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Gain* ¹	G	I _F = 120 mA, λ _{in} = 1310 nm P _{in} = -25 dBm	—	10	—	dB
Polarization Dependent Gain* ¹	PDG	I _F = 120 mA, λ _{in} = 1310 nm P _{in} = -25 dBm	—	1.5	—	dB
Saturation Power* ¹	P _S	I _F = 120 mA, λ _{in} = 1310 nm, -3 dB	—	11.5	—	dBm
Noise Figure* ¹	NF	I _F = 120 mA, λ _{in} = 1310 nm P _{in} = -25 dBm	—	5.8	—	dB
Beam Divergence Angle Lateral (Parallel)* ¹	θ _t	I _F = 120 mA, FAHM	—	23	—	deg.
Beam Divergence Angle Transverse (Perpendicular)* ¹	θ _p	I _F = 120 mA, FAHM	—	23	—	deg.
Optical output	P _{ASE}	I _F = 120 mA	—	0.25	—	mW
Forward Voltage	V _F	I _F = 120 mA	1.0	1.2	1.5	V

* The measured data may be different with these specifications depending on the measurement settings.

* Hermetic sealing is recommended for long term reliability.

*¹ Guaranteed Design Value



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.



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Please read "Notes on Handling Optical Devices" before use.
<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>

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