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■ Pinning information

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BGO807CE

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Datasheet

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**General description** 

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High dynamic range optical receiver amplifier module in a standard SOT115 package where the non-jacketed fiber has either no connector or has an FC/APC or SC/APC connector. The amplifier supply voltage pin and the photodiode bias voltage pin both connect to 24 V (DC). The modules have a mono mode optical input suitable for 1290 nm to 1600 nm wavelengths, a terminal to monitor the photodiode current and an electrical output having a characteristic impedance of 75 Ω.

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Features and benefits

- Excellent flatness
- Excellent linearity
- Gold metallization ensures excellent reliability
- High optical input power range
- E Low noise
- Rugged construction
- Standard CATV outline

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**Applications** 

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CATV optical node systems operating in the 40 MHz to 870 MHz frequency range

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#### Quick reference

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| Symbol             | Parameter                               | Conditions   | Min  | Typ/Nom | Max | Unit |
|--------------------|---|--|------|---------|-----|------|
| S                  | responsivity                            | $\lambda$ = 1.3 μm; $Z_L$ = 75 $\Omega$  | 800  |         |     | V/W  |
| SL                 | slope cable equivalent                  | f <sub>2</sub> = 870 MHz; f <sub>1</sub> = 40 MHz                                      | 0    |         | 2   | dB   |
| FL                 | flatness of frequency response          | $f_2$ = 870 MHz; $f_1$ = 40 MHz; $V_{SUP}$ = 24 V                                      |      |         | 1   | dB   |
| RL out             | output return loss                      | $Z_{\perp}$ = 75 $\Omega$ ; $Z_{\odot}$ = 75 $\Omega$ ; 40 MHz $\leq$ f $\leq$ 870 MHz | 11   |         |     | dB   |
| IMD3               | third-order intermodulation distortion  | f <sub>meas</sub> = 853.25 MHz; P <sub>i(opt)</sub> = 1 mW                             |      |         | -69 | dB   |
| IMD2               | second-order intermodulation distortion | f <sub>meas</sub> = 854.5 MHz  |      |         | -53 | dB   |
| NF                 | noise figure                            | 750 MHz < f < 870 MHz  | JI I |         | 8.5 | dB   |
| 1 <sub>CC</sub>    | total supply current (DC)               | V <sub>B</sub> = 24 V  | 175  |         | 205 | mA   |
| f <sub>range</sub> | frequency range                         |  | 40   |         | 870 | MHz  |

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Similar Products

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BGO807CE links to the similar products page containing an overview of products that are similar in function or related to the type number(s) as listed on this page. The similar products page includes products from the same catalog tree(s), relevant selection guides and products from the same functional category.

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#### Pinning information Pin Symbol Simplified outline Graphic symbol Description IM monitor current 2 COM common COM common 4 V<sub>B</sub> PHOTO photo diode supply voltage V<sub>B</sub> AMPLIFIER 5 amplifier supply voltage 7 COM common

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2, 3, 7, 8 sym098

# Products/packages

COM

OUTPUT

common

output

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| Type number  | Orderable part number | Ordering code (12NC) | Product status    | Package            | Packing   | Marking          | ECCN |
|--------------|-----------------------|----------------------|-------------------|--------------------|-----------|------------------|------|
| BGO807CE/SC0 | BGO807CE/SC0,112      | 9340 645 87112       | Volume production | SOT1 15X<br>(SFO8) | Bulk Pack | Standard Marking |      |
| BGO807CE     | BGO807CE,112          | 9340 645 85112       | Volume production | SOT115X<br>(SFO8)  | Bulk Pack | Standard Marking |      |
| BGO807CE/FC0 | BGO807CE/FC0,112      | 9340 645 86112       | Volume production | SOT115X<br>(SFO8)  | Bulk Pack | Standard Marking |      |

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## Quality/reliability/chemical content

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| Type number  | Orderable part number | Chemical content | RoHS               | Leadfree conversion date | RHF | IFR (FIT) | MTBF (hours) | MSL | MSL LF |
|--------------|-----------------------|------------------|--------------------|--------------------------|-----|-----------|--------------|-----|--------|
| BGO807CE/SC0 | BGO807CE/SC0,112      | BGO807CE/SC0     | EU ROHZCOMPLIANT 🗖 |                          | E   |           |              | NA  | NA     |
| BGO807CE     | BGO807CE,112          | BGO807CE         | EU ROH2COMPLIANT D |                          | E   |           |              | NA  | NA     |
| BGO807CE/FC0 | BGO807CE/FC0,112      | BGO807CE/FC0     | EU ROHSCOMPLIANT 🗖 |                          | E   |           |              | NA  | NA     |

Quality and reliability disclaimer

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# Disclaimers

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