

Broadband Product Line

AMPF-122LM

Limiting Amplifier

ADVANCED DATA SHEET



DESCRIPTION

Aeroflex Microelectronic Solutions' limiting amplifiers are designed for use in high speed fiber optic receiver applications. These amplifiers are optimized for Group Delay and AM/PM conversion. AMPF-122LM is ideal for use in fiber optic communication systems, because of its compact size, low cost and high reliability.

FEATURES

- State-of-the-Art GaAs technology
- Internal DC regulation
- Output rise/fall time <32 ps
- 85% Eye opening
- Input range 30 to 1500 mVpp with constant output
- Compact Size

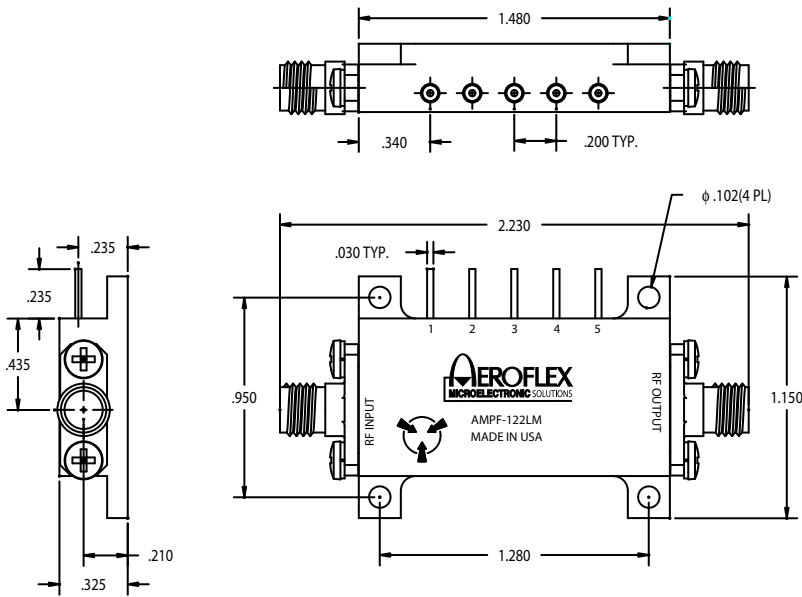
SPECIFICATIONS

| Parameters | Min | Max | Units |
|-------------------------|-----|-----|-------|
| Input Voltage | | 1.5 | Vdc |
| Supply Voltage Positive | 7.5 | 15 | Vdc |
| Operating Temperature | -10 | +70 | °C |
| Storage Temperature | -20 | +85 | °C |

(V+ = +75 to +8.5V, V- = -4.75V to -5.75V, TA = -10°C to +70°C - Min/Max limits only), (V+ = +8V, V- = -5V, TA = +25°C - Typ), Zin/Zout = 50Ω)

| Parameters | Conditions | Min | Typ | Max | Units |
|----------------------|------------------------|-----|--------|------|-------|
| Bandwidth | | | | | |
| Low Frequency | 3 dB point | | 100 | | kHz |
| High Frequency | 3 dB point | | 16 | | GHz |
| Rise/Fall Time | 10 - 90% | | 28 | 32 | ps |
| Gain | | | 50 | | dB |
| Output Voltage | I | 1.0 | | 2.0 | Vpp |
| Input Voltage | | 30 | N/A | 1500 | mV |
| Output Eye Crossover | | 40 | 50 | 60 | % |
| Symmetry | | | | | |
| Invert/Non-Invert | | | Invert | | |
| Output Eye Opening | Vpp in eye center 10ps | | 85 | | % |
| Supply Current | | | | | |
| +8V to +15V | | | 350 | 450 | mA |
| Threshold Adjust | Bias voltage Input | -2 | | +2 | V |

OUTLINE DRAWING



PIN FUNCTION

| Pin # | Function |
|-------|------------------|
| 1 | GROUND |
| 2 | NO CONNECTION |
| 3 | -5V |
| 4 | THRESHOLD ADJUST |
| 5 | +8 to +15V |

ORDERING INFORMATION

| Model Number | Speed | Package |
|--------------|-----------|-------------------------------------|
| AMPF-122LM | 12.5 Gb/s | Multiple Package Outlines Available |

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