

## BROADBAND LIMITING AMPLIFIER



The MTL 052-17-15-7LA is a broadband solid state limiting amplifier which operates over the frequency range 0.5 to 2.0 GHz. The amplifier is offered in a low profile mechanical housing which incorporates integral DC regulation and employs GaAs PHEMT devices. The amplifier is designed and manufactured for high reliability and consistent unit to unit performance.

### Electrical specification specified at 25°C case temperature

| SPECIFICATION                                      | MIN | TYP | MAX   | UNITS |
|----------------------------------------------------|-----|-----|-------|-------|
| Frequency Range                                    | 0.5 |     | 2.0   | GHz   |
| Small Signal Gain                                  | 17  |     |       | dB    |
| Gain Flatness                                      |     |     | ±1.25 | dB    |
| Noise Figure                                       |     |     | 7.0   | dB    |
| Saturated output power                             | 15  |     |       | dBm   |
| Input power range for output saturated power       | 0   |     | +5    | dBm   |
| Input VSWR                                         |     |     | 2:1   |       |
| Output VSWR                                        |     |     | 2:1   |       |
| Harmonics<br>(RF input power range of 0 to +5 dBm) |     |     | 8     | dBc   |
| Input DC voltage                                   |     | 15  |       | V     |
| DC current consumption                             |     | 200 |       | mA    |

**(Specification subject to changes without notice)**

### Absolute Maximum Ratings

| Parameter             | Value/Type | Units |
|-----------------------|------------|-------|
| Input DC voltage      | 20         | V     |
| RF Input power        | +12        | dBm   |
| Operating temperature | -40 to +85 | °C    |
| Storage temperature   | -55 to +95 | °C    |

### Mechanical Specifications

| Parameter                                         | Value/Type                  | Units | Limits |
|---------------------------------------------------|-----------------------------|-------|--------|
| Dimensions –excluding RF connectors and heat sink | 34(L) x 17(W) x 7(H)        | mm    |        |
| Weight                                            | 30                          | Grams | Max    |
| RF Connectors Input/Output                        | SMA                         |       |        |
| DC connector                                      | Solder in Filter            |       |        |
| Cooling                                           | External Heat Sink Required |       |        |