

Features

- AVAILABLE IN SURFACE MOUNT
- WIDE TEMPERATURE OPERATION
- YIELDS LINEAR ATTENUATION (dB) FOR LINEAR CONTROL VOLTAGE

Ordering Information

| Part Number | Package |
|-------------|-------------------|
| LG1 | TO-8 |
| SMLG1 | Surface Mount |
| CLG1 ** | SMA Connectorized |

** The connectorized version is not RoHs compliant.

Product Image



Linearity Specifications: Frequency: 10 - 1000 MHz, attenuation range: 3 to 20 dB

| Temperature | Units | Typical | Guaranteed Max. |
|----------------|-------|---------|-----------------|
| 25°C | dB | < ±1.0 | ±1.5 |
| -54°C to +85°C | dB | < ±1.5 | ±2.0 |

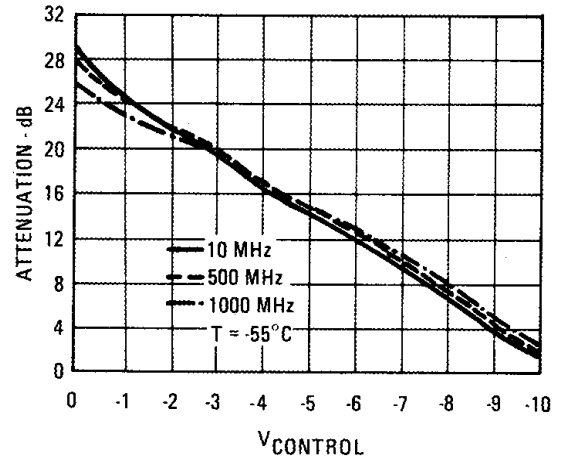
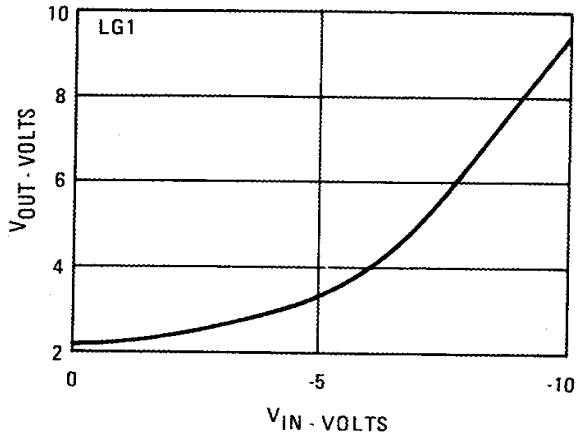
Typical Current Drain

| | Units | Control Voltage= -10 V (Min. Attenuation) | Control Voltage= 0 V (Max. Attenuation) |
|--|-------|--|--|
| V- V+ V _{CON} | mA | 5 24 15 | 5 11 2.5 |
| Combination of LG1 Plus G1 V- V+ V _{CON} | mA | 5 31 15 | 5 21 2.5 |

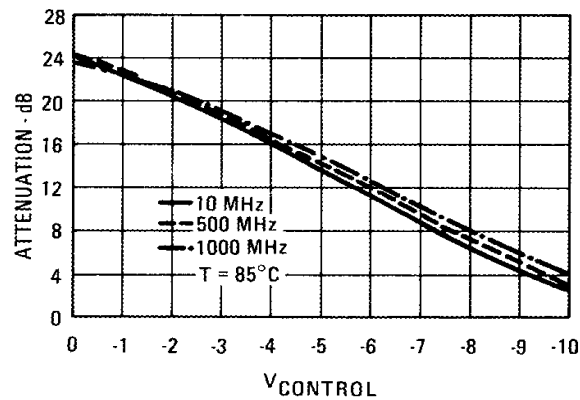
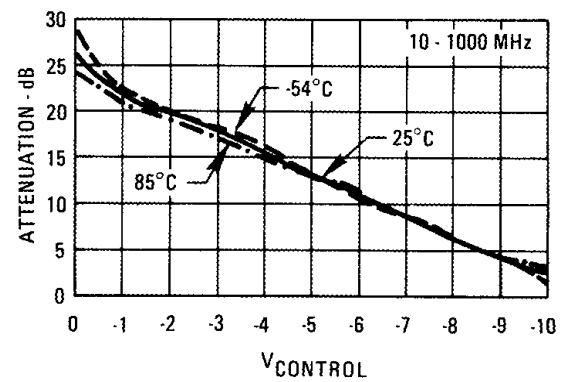
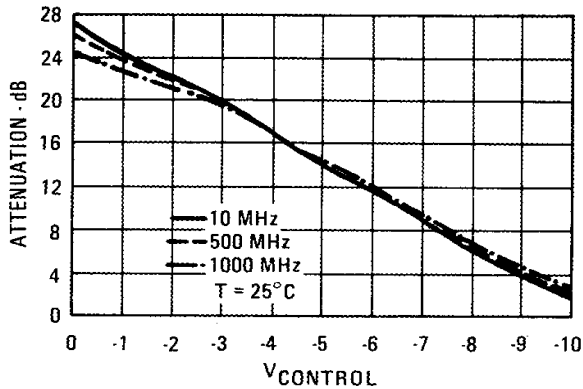
Weight approximately 2.0 grams (0.07 oz.)

Typical Performance Curves

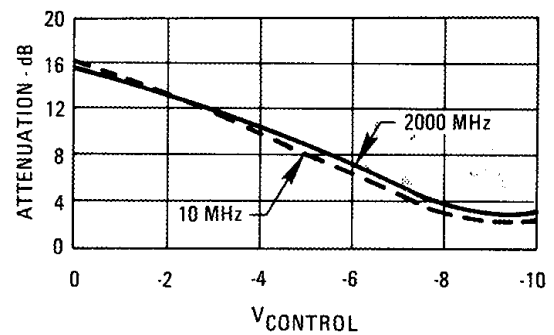
Output Voltage vs. Input Voltage



Attenuation of LG1 and G1 in Cascade vs. Control Voltage



Attenuation of LG1 and G2 in Cascade vs. Control Voltage



LG1 / SMLG1 / CLG1

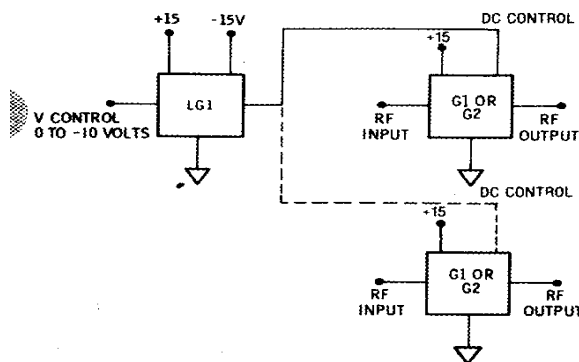


TO-8 Thin-Film Linearizer

Rev. V2

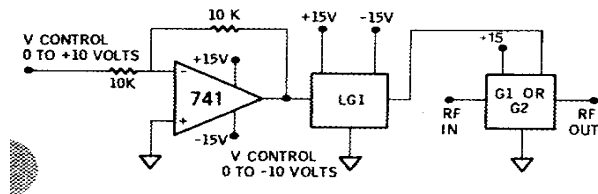
Absolute Maximum Ratings

| Parameter | Absolute Maximum |
|---------------------------------------|------------------|
| Storage Temperature | -62°C to +125°C |
| Maximum Case Temperature | 125°C |
| Maximum DC Voltage | +17 Volts |
| "S" Series Burn-in Temperature (Case) | 125°C |

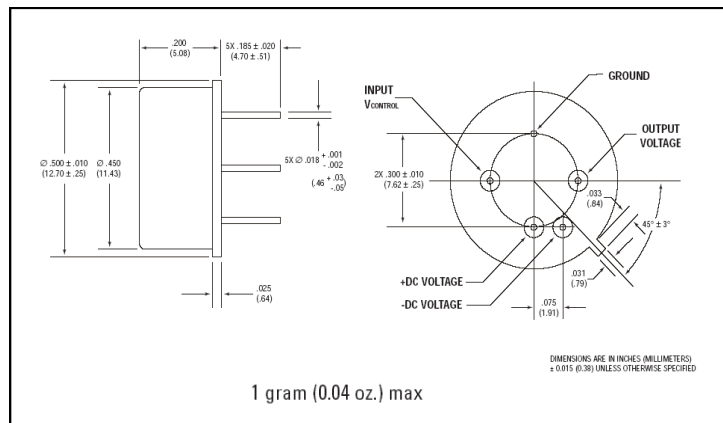


The LG1 can drive two G1's or G2's as shown above. The LG1 has a response time of 30 μ s over its entire band of control voltage. The response time of the G1 or G2 is typically 60-100 μ s.

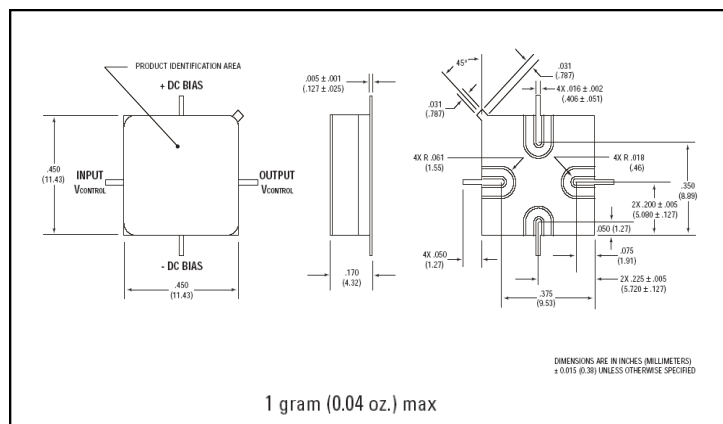
If a positive control voltage is desired the following circuit may be used. The op-amp buffer can also generate a very low source resistance in the order of thousands of an ohm.



Outline Drawing: TO-8



Outline Drawing: Surface Mount



Outline Drawing: SMA Connectorized

