

### Features

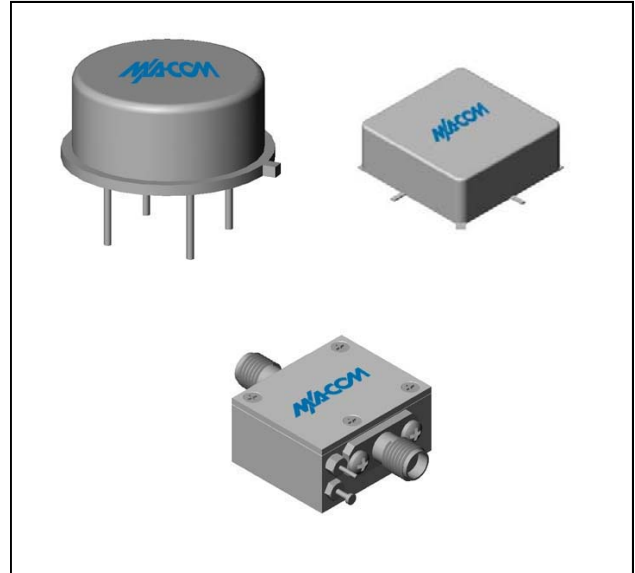
- AVAILABLE IN SURFACE MOUNT
- WIDE TEMPERATURE OPERATION
- YIELDS LINEAR ATTENUATION (dB) FOR LINEAR CONTROL VOLTAGE

### 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            |

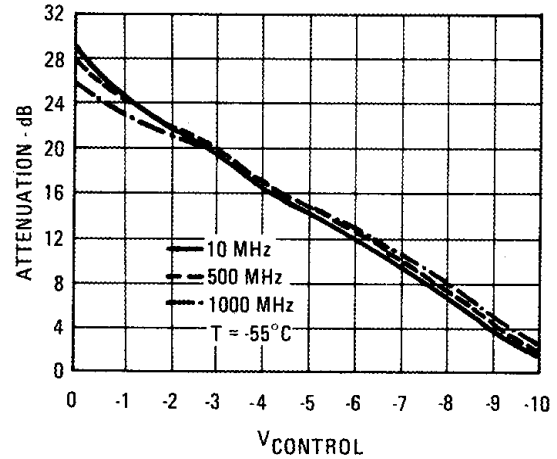
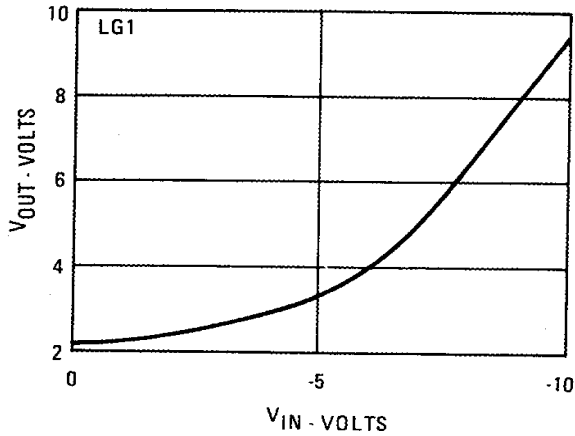
### Typical Current Drain

|                            | Units | Control Voltage= -10 V<br>(Min. Attenuation) | Control Voltage= 0 V<br>(Max. Attenuation) |
|----------------------------|-------|--|--|
| V-                         | mA    | 5  | 5  |
| V+                         | mA    | 24   | 11   |
| V <sub>CON</sub>           | mA    | 15   | 2.5  |
| Combination of LG1 Plus G1 |       |  |  |
| V-                         | mA    | 5  | 5  |
| V+                         | mA    | 31   | 21   |
| V <sub>CON</sub>           | mA    | 15   | 2.5  |

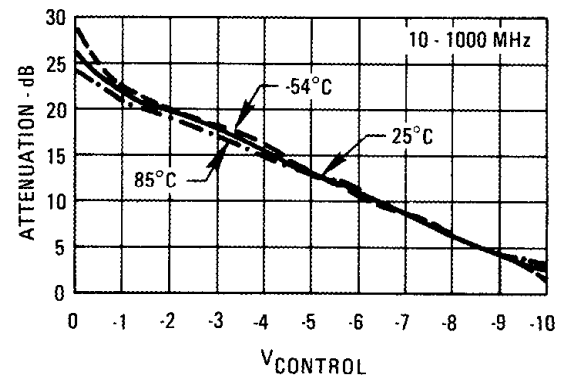
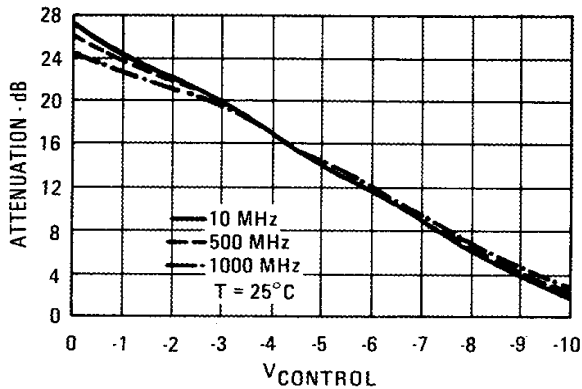
Weight approximately 2.0 grams (0.07 oz.)

### Typical Performance Curves

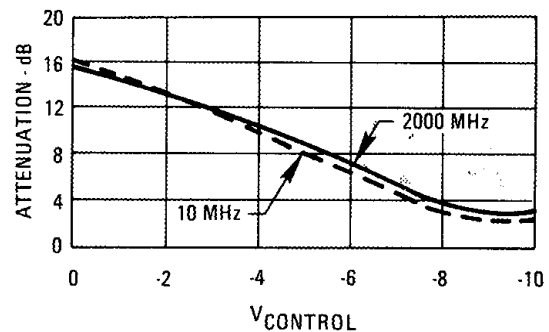
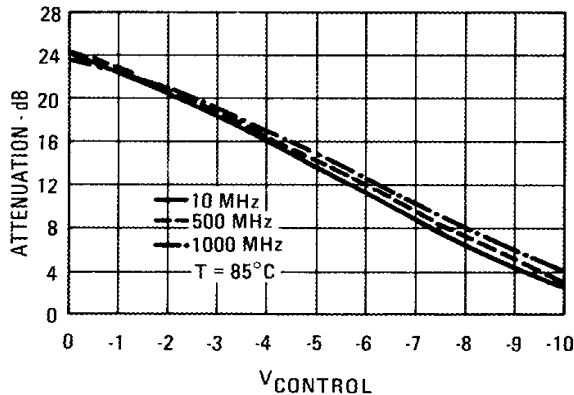
Output Voltage vs. Input Voltage



Attenuation of LG1 and G1 in Cascade vs. Control Voltage

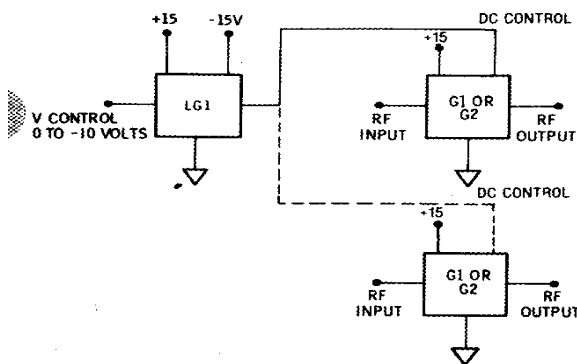


Attenuation of LG1 and G2 in Cascade vs. Control Voltage



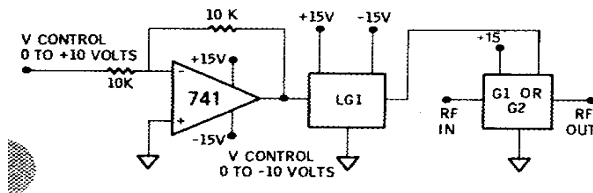
### Absolute Maximum Ratings

| 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            |

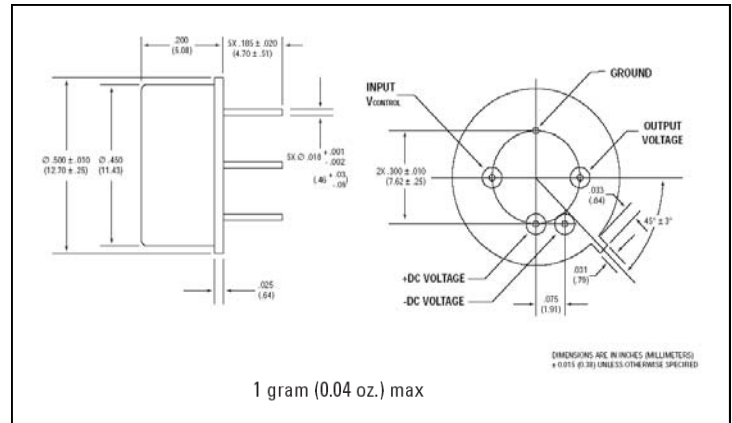


The LG1 can drive two G1's or G2's as shown above. The LG1 has a response time of 30  $\mu$ s over its entire band of control voltage. The response time of the G1 or G2 is typically 60-100  $\mu$ s.

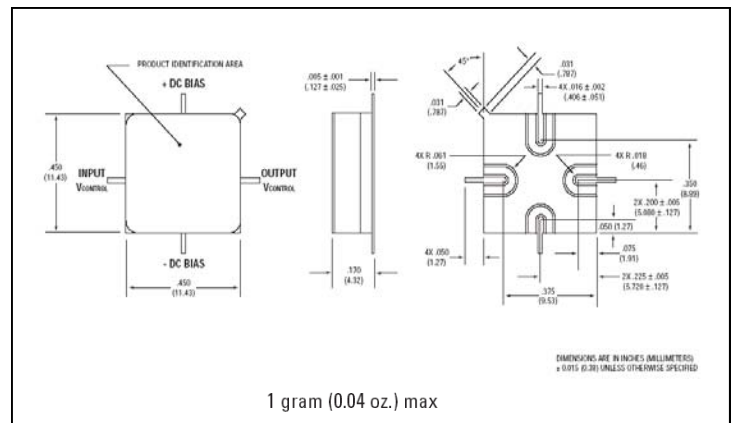
If a positive control voltage is desired the following circuit may be used. The op-amp buffer can also generate a very low source resistance in the order of thousands of an ohm.



### Outline Drawing: TO-8



### Outline Drawing: Surface Mount



### Outline Drawing: SMA Connectorized

