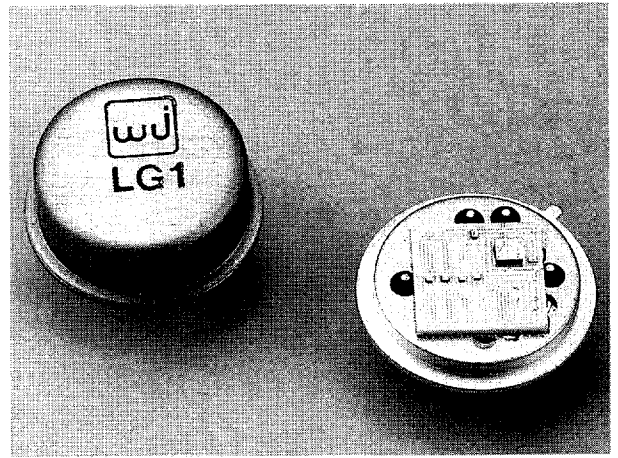


# WJ-LG1/SMLG1

## TO-8 THIN-FILM LINEARIZER

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



### Linearity Specifications\*

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

### Typical Current Drain

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

\*Frequency: 10 - 1000 MHz; attenuation range: 3 to 20 dB

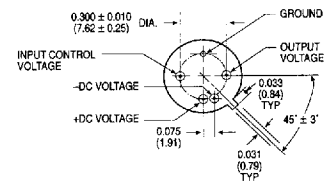
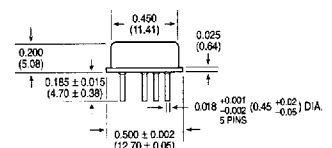
### Absolute Maximum Ratings

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

Weight approximately 2.0 grams (0.07oz.)

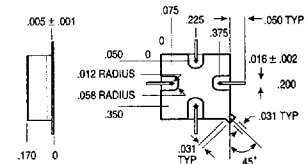
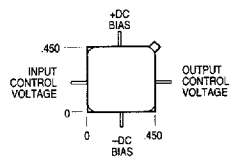
### Outline Drawing

LG1



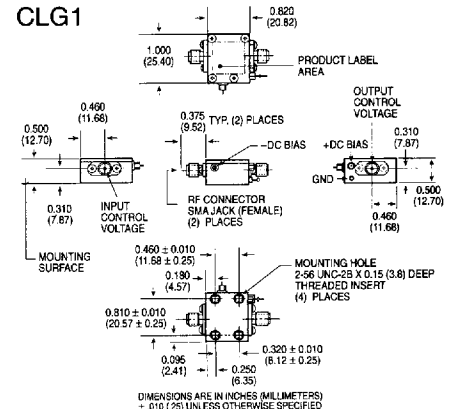
DIMENSIONS ARE IN INCHES (MILLIMETERS)  
±.006 (.15) UNLESS OTHERWISE SPECIFIED

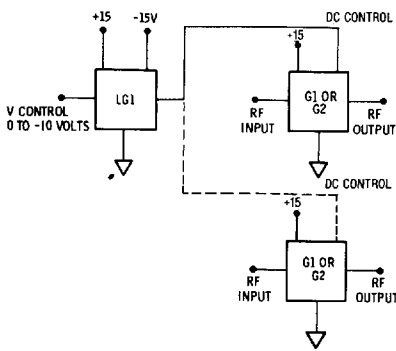
SMLG1



DIMENSIONS ARE IN INCHES (MILLIMETERS)  
±.010 (.25) UNLESS OTHERWISE SPECIFIED

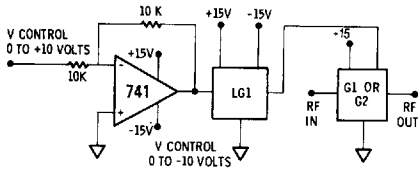
CLG1



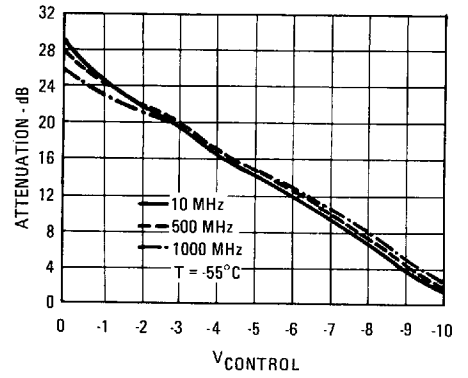
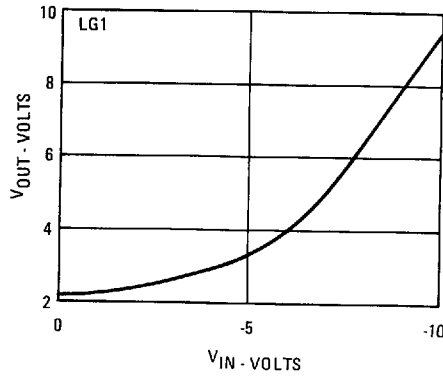


The LG1 can drive two G1's or G2's as shown above. The LG1 has a response time of 30  $\mu$ s over its entire band of control voltage. The response time of the G1 or G2 is typically 60-100  $\mu$ s.

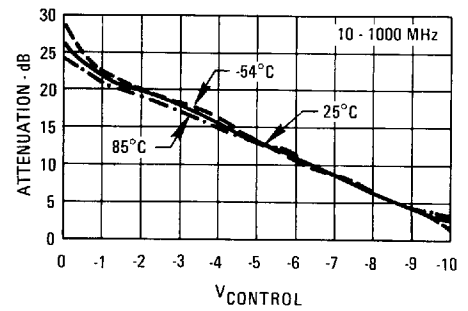
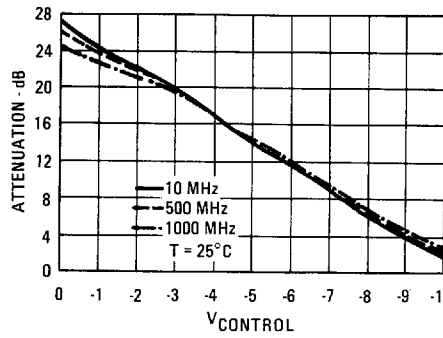
If a positive control voltage is desired the following circuit may be used. The op-amp buffer can also generate a very low source resistance in the order of thousands of an ohm.



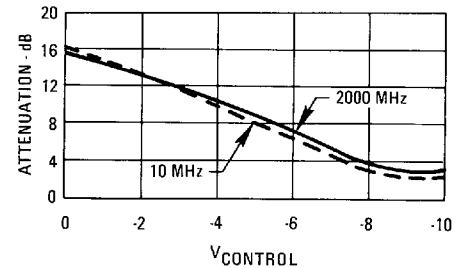
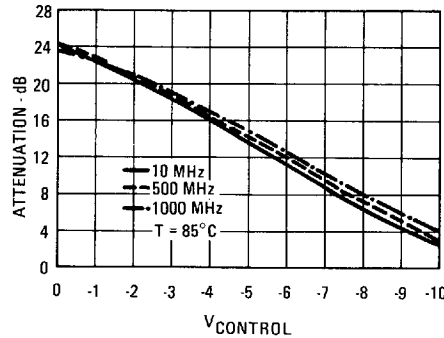
### Typical Performance at 25°C Output Voltage vs. Input Voltage



### Attenuation of LG1 and G1 in Cascade vs. Control Voltage



### Attenuation of LG1 and G2 in Cascade vs. Control Voltage



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