

# GC2002

## 5 TO 2000 MHz TO-8 VOLTAGE CONTROLLED ATTENUATOR MODULE

Typical Values	GC2002
Switching Speed (10 - 90%) .....	2 $\mu$ sec
(0 - 100%) .....	< 75 $\mu$ sec
Attenuation Range .....	> 25 dB
Low SWR .....	1.6:1
Excellent Flatness vs. Frequency .....	$\pm$ 0.5
Standard Size TO-8 Package	

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50 °C	-55 to +85 °C	
<b>Frequency Range</b>		5-2100 MHz	5-2000 MHz	5-2000 MHz
<b>Attenuation (Min.)</b>				
5-500 MHz	36 dB	31 dB	30 dB	
5-1000 MHz	30 dB	25 dB	24 dB	
5-2000 MHz	23 dB	20 dB	18 dB	
<b>Insertion Loss (Max.)</b>				
5-500 MHz	1.5 dB	2.0 dB	2.8 dB	
5-1000 MHz	2.0 dB	2.5 dB	3.0 dB	
5-2000 MHz	2.5 dB	3.0 dB	3.8 dB	
<b>SWR (Max.)</b>				
Input/Output				
5-500 MHz	1.6:1	2.0:1	2.0:1	
5-1000 MHz	1.6:1	2.0:1	2.0:1	
5-2000 MHz	1.7:1	2.2:1	2.2:1	
<b>Flatness vs. Freq. (Max.)</b> (Attenuation to 15 dB)				
5-1000 MHz	< $\pm$ 0.5 dB	< $\pm$ 1.0 dB	< $\pm$ 1.2 dB	
5-2000 MHz	< $\pm$ 1.0 dB	< $\pm$ 1.5 dB	< $\pm$ 1.7 dB	
<b>Switching Speed (Max.)</b>				
10 - 90%	2.0 $\mu$ sec	4.0 $\mu$ sec	—	
0 - 100%	75 $\mu$ sec	125 $\mu$ sec	—	
<b>Bias Current (Max.)</b>	8 mA	10 mA	12 mA	
<b>Control Voltage</b>	0 to +15 V	0 to +15 V	0 to +15 V	
<b>Control Current (Max.)</b>	5 mA	7 mA	7 mA	

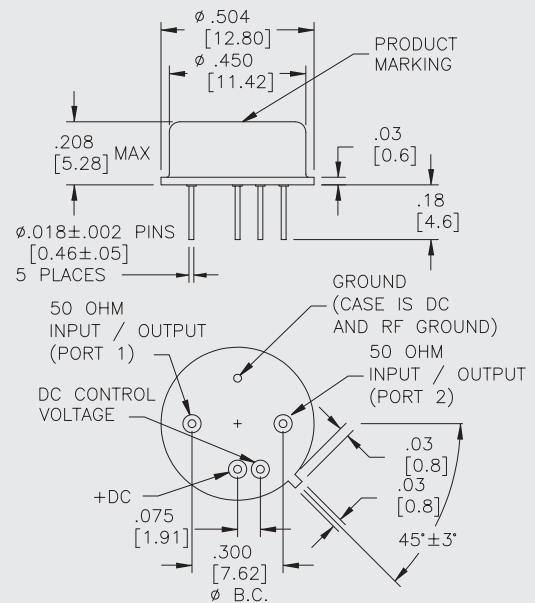
\* Measured in a 50-ohm system at +5 Vdc bias.

### ABSOLUTE MAXIMUM RATINGS

Storage Temperature .....	-62 to +125 °C
Maximum Case Temperature .....	+125 °C
Maximum DC Voltage .....	+9 Volts
Maximum Continuous RF Input Power .....	200 Milliwatts
Maximum Peak Power (3 $\mu$ sec Max.) .....	1.0 Watt
Burn-in Temperature .....	+125 °C

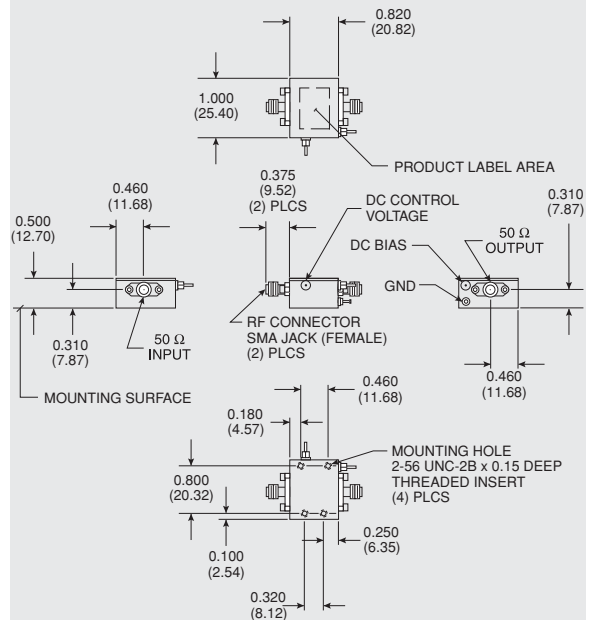
### GC2002

#### TO-8 Package for Attenuators



### GC2002

#### TO-8 SMA Attenuator Case



DIMENSIONS ARE IN INCHES [MILLIMETERS]