Voltage Variable Absorptive Attenuator
DC - 2 GHz

AT-332, AT-337

V 2.00

Features

- Available in Ceramic and TO-5 packages
- 40 dB Matched Attenuation
- Low Insertion Loss

Guaranteed Specifications[1]

(From -55°C to + 85°C)

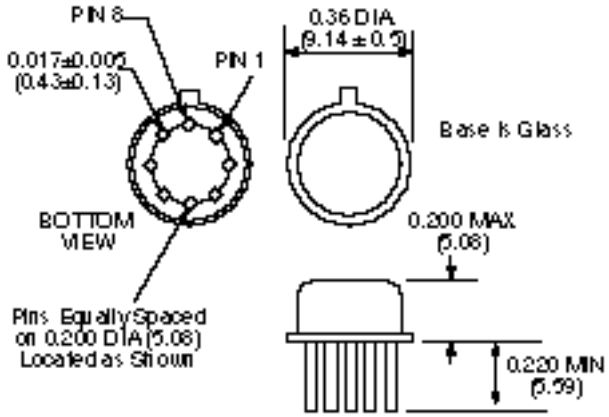
Frequency Range			DC – 2.0 GHz
Insertion Loss	DC – 2.0 GHz		1.5 dB Max
	DC – 1.0 GHz		1.2 dB Max
VSWR		AT-332	AT-337
	DC – 2.0 GHz	1.4:1	1.5:1 Max
	DC – 1.0 GHz	1.25:1	1.3:1 Max
Attenuation (Matched) @ 25°C	DC – 2.0 GHz		40 dB Min
Flatness (Peak to Peak)	0-20 dB Attenuation		1.0 dB Max
	0-30 dB Attenuation		2.0 dB Max
	0-40 dB Attenuation		3.0 dB Max
Attenuation vs Temperature (Relative to 25°C)	0 to 20 dB Attenuation		±2.5 dB
	0 to 30 dB Attenuation		±4.0 dB
	0 to 40 dB Attenuation		±6.0 dB

Operating Characteristics

Impedance						50 Ohms Nominal
Switching Characteristics						
Trise, Tfall (10% to 90%)						14 ns Typ
Ton, Toff (50% CTL to 90%/10% RF)						22 ns Typ
Transients (in band)						14 mV Typ
Input Power for 1 dB Compression						
Attenuation Level	0 dB					
0.05 GHz	21					
0.5 GHz to 2.0 GHz	27					dBm Typ
Intermodulation Intercept Point (for two-tone input power up to +5 dBm)						
Intercept Points	IP2			IP3		
Attenuation Level (dB)	0	5	10	0	5	10
0.05 GHz	54	43	39	39	33	30 dBm Typ
0.5 to 2 GHz	65	54	49	47	44	38 dBm Typ
Phase Shift (Relative to 0 dB Attenuation)						
Attenuation Level	10 dB	20 dB	30 dB	40 dB		
0.5 GHz	0.1	3	10	19		Deg Typ
2.0 GHz	0.4	12	35	60		Deg Typ
Control Voltages						
A input (Shunt FETS)						0 to -4V @ 100 µA Max
B input (Series FETS)						0 to -4V @ 100 µA Max

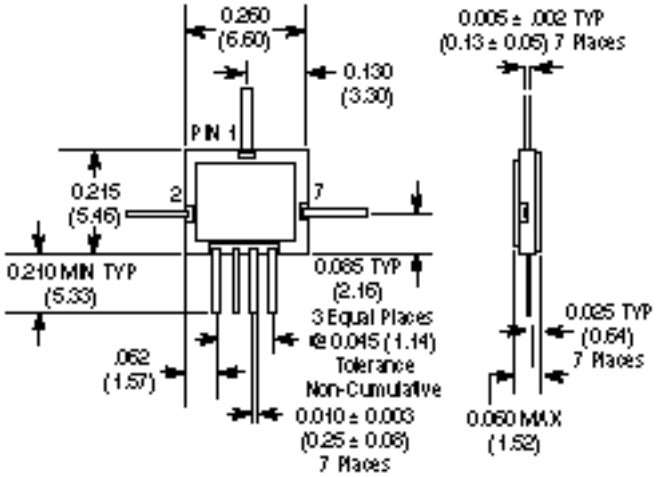
1. All specifications apply with 50 ohm connected to all RF Ports.
2. Contact the factory for standard or custom sreenig requirements.

AT-332 (TO-5-4)



Bottom of Case Is AC Ground
Dimensions In ( ) are in mm.
Unless Otherwise Noted . xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.x = ±0.5)

AT-337 (CR-2 w/o Pin 1)



Bottom of Case is AC Ground
Dimensions in ( ) are in mm.
Unless Otherwise Noted: xxx = ± 0.010 (xx = ± 0.25)
xx = ± 0.02 (x = ± 0.5)

Ordering Information

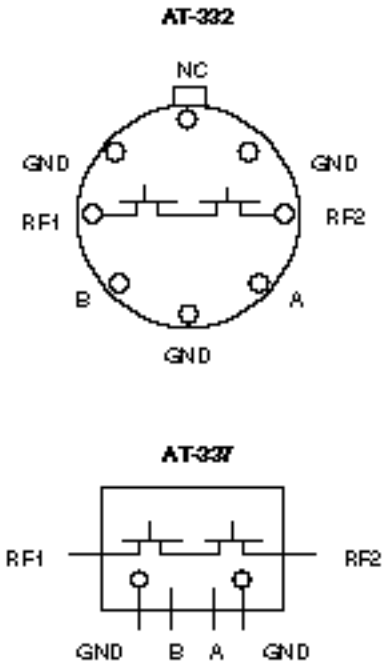
Model No.	Package
AT-354 PIN	Dual Inline

Absolute Maximum Ratings

Parameter	Absolute Maximum[1]
Max. Input Power	
0.05 GHz	+27 dBm
0.5 – 2.0 GHz	+30 dBm
Control Voltage	+5V, -8.5V
Operating Temperature	-55°C to +125°C
Storage Temperature	-65°C to +150°C

1.Operation of this device above any one of these parameters may cause permanent damage.

Functional Schematics (Top View)



Typical Performance