



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 Specifications¹ (From -55°C to +85°C)

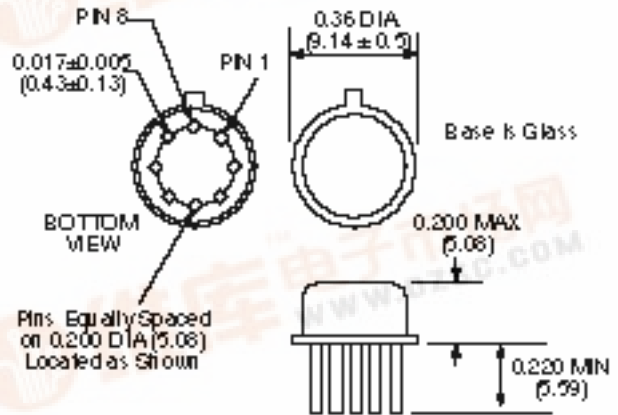
Frequency Range	DC - 2.0 GHz	
Insertion Loss	DC - 2.0 GHz	1.5 dB Max
	DC - 1.0 GHz	1.2 dB Max
VSWR	DC - 2.0 GHz	AT-332 1.4:1
	DC - 1.0 GHz	AT-337 1.25:1
Attenuation (Matched) @ 25°C	DC - 2.0 GHz	40 dB Min
Flatness (Peak to Peak)	0-20 dB Attenuation	1.0 dB Max
	0-30 dB Attenuation	2.0 dB Max
	0-40 dB 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 screening requirements.

AT-332 (TO-5-4)

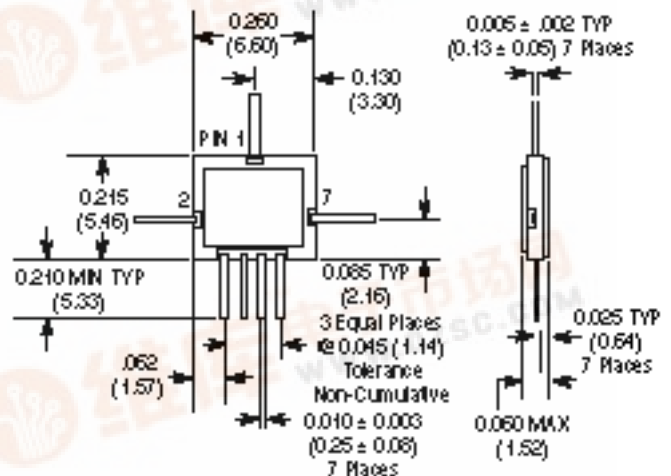


Bottom of Case is AC Ground

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

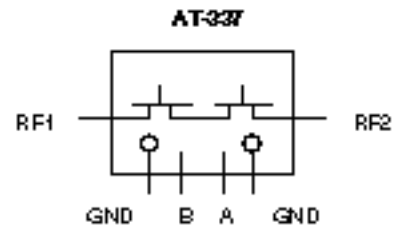
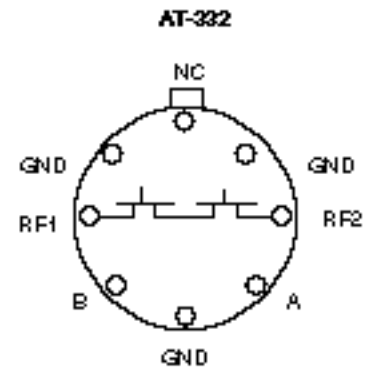


Absolute Maximum Ratings

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

