



# AR2538 10 TO 2500 MHz TO-8B CASCADABLE AMPLIFIER

Typical Values

<b>High Gain</b> .....	<b>AR2538</b> 21.0 dB
<b>High Output Power</b> .....	+26.0 dBm
<b>Low Noise Figure</b> .....	3.5 dB
<b>High Performance Thin Film TO-8B Package</b>	

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50° C	-55 to +85° C	
Frequency (Min.)	5-2500 MHz	10-2500 MHz	10-2500 MHz	
Small Signal Gain (Min.)	21.0 dB	20.0 dB	19.5 dB	
Gain Flatness (Max.)	±0.5 dB	±0.8 dB	±1.0 dB	
Noise Figure (Max.) 100-2500 MHz	3.5 dB	4.0 dB	4.5 dB	
SWR (Max.) Input/Output 20-2500 MHz	1.6:1	1.8:1	2.0:1	
Power Output (Min.) @ 1dB comp.	+26.0 dBm	+24.5 dBm	+24.0 dBm	
DC Current (Max.)	185 mA	190 mA	195 mA	

\* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

## INTERMODULATION PERFORMANCE

Typical @ 25° C

<b>Second Order Harmonic Intercept Point</b> .....	<b>AR2538</b> +60 dBm
<b>Second Order Two Tone Intercept Point</b> .....	+54 dBm
<b>Third Order Two Tone Intercept Point</b> .....	+40 dBm

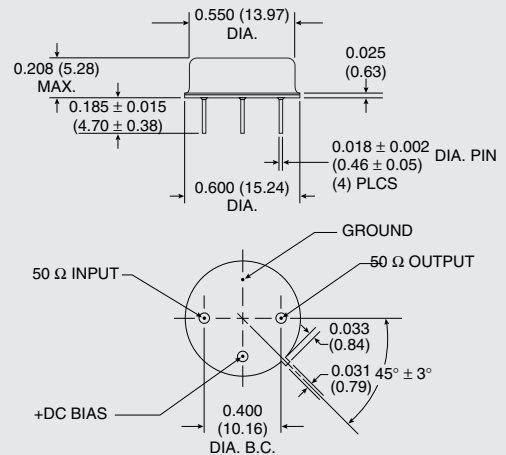
## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	-62 to 125° C
<b>Maximum Case Temperature</b> .....	+125° C
<b>Maximum DC Voltage</b> .....	+17 Volts
<b>Maximum Continuous RF Input Power</b> .....	+15 dBm
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	100 Milliwatts
<b>Maximum Peak Power (3 μsec Max.)</b> .....	0.5 Watt
<b>Burn-in Temperature</b> .....	+100° C
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	—° C/Watt
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	—° C

<sup>1</sup> Thermal resistance is based on total power dissipation.

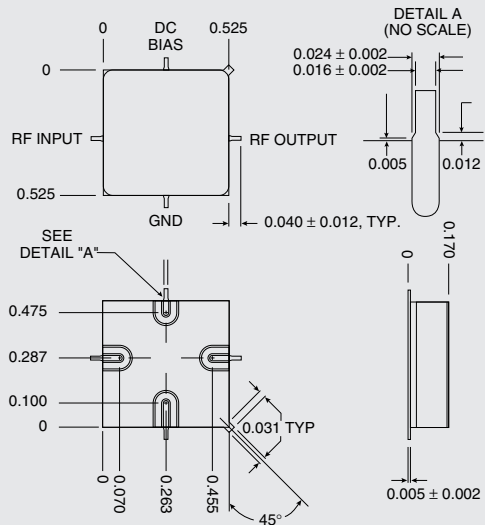
## AR2538

### TO-8B Package for Amplifiers



## ARS2538

### SMT0-8B Package for Amplifiers



DIMENSIONS ARE IN INCHES (MILLIMETERS)