

# AC508

## 5 TO 500 MHz TO-8 CASCADABLE AMPLIFIER

Typical Values	AC508
Medium Output Level.....	+19.0 dBm
High Third Order I.P.....	+31 dBm
High Performance Thin Film Standard Size TO-8 Package	

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50° C	-55 to +85° C	5-500 MHz
Frequency (Min.)	5-600 MHz	5-500 MHz	5-500 MHz	
Small Signal Gain (Min.)	13.5 dB	13.0 dB	12.5 dB	
Gain Flatness (Max.)	±0.4 dB	±0.5 dB	±0.7 dB	
Noise Figure (Max.)	<4.5 dB	5.0 dB	5.5 dB	
SWR (Max.) Input/Output	1.5:1	1.7:1	1.9:1	
Power Output (Min.) @ 1dB comp.	+19.5 dBm	+18.0 dBm	+17.5 dBm	
DC Current (Max.)	65 mA	69 mA	71 mA	

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

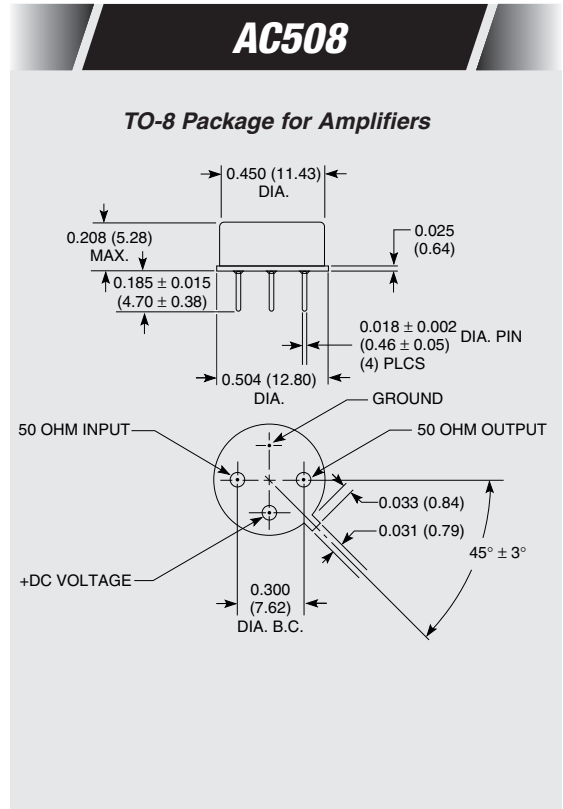
### INTERMODULATION PERFORMANCE

Typical @ 25° C; 100 MHz	AC508
Second Order Harmonic Intercept Point.....	+52 dBm
Second Order Two Tone Intercept Point.....	+46 dBm
Third Order Two Tone Intercept Point.....	+33 dBm

### ABSOLUTE MAXIMUM RATINGS

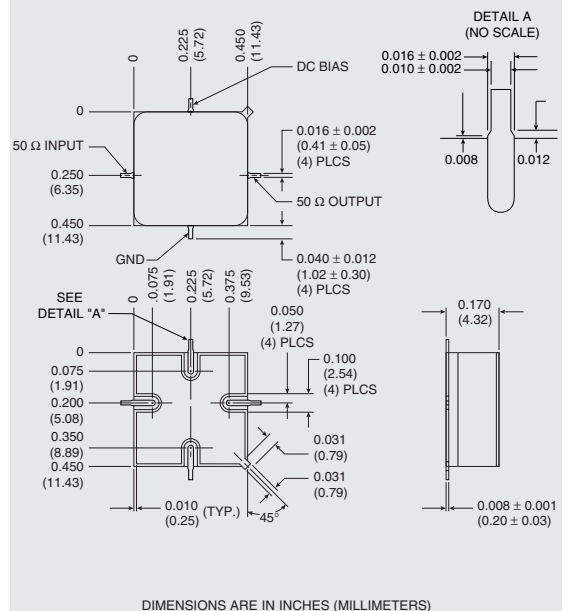
Storage Temperature.....	-62 to 125° C
Maximum Case Temperature.....	+125° C
Maximum DC Voltage.....	+19 Volts
Maximum Continuous RF Input Power.....	+13 dBm
Maximum Short Term Input Power (1 Minute Max.).....	100 Milliwatts
Maximum Peak Power (3 μsec Max.).....	0.5 Watt
Burn-in Temperature.....	+105° C
Thermal Resistance <sup>1</sup> (θjc).....	+28° C/Watt
Junction Temperature Rise Above Case (Tjc).....	+31.7° C

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



### AS508

#### SMT0-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES (MILLIMETERS)