

# AC688

## 200 TO 600 MHz TO-8 CASCADABLE AMPLIFIER

**Typical Values**

High Gain .....	<b>AC688</b> 21.0 dB
Low Noise .....	<1.0 dB
High Output Level .....	+21.5 dBm
High Performance Thin Film Standard Size TO-8 Package	

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	150-650 MHz	200-600 MHz	200-600 MHz
Small Signal Gain (Min.)	21.0 dB	20.3 dB	20.0 dB
Gain Flatness (Max.)	—	±0.8 dB	±1.0 dB
Noise Figure (Max.)	0.9 dB	1.1 dB	1.4 dB
SWR (Max.) Input/Output	—	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+21.5 dBm	+20.5 dBm	+20.0 dBm
Reverse Isolation	28 dB	—	—
DC Current (Max.)	85mA	—	—

\* Measured in a 50-ohm system at +5 Vdc unless otherwise specified.

### INTERMODULATION PERFORMANCE

Typical @ 25 °C

Second Order Harmonic Intercept Point .....	<b>AC688</b> +51 dBm
Second Order Two Tone Intercept Point .....	+45 dBm
Third Order Two Tone Intercept Point .....	+33 dBm

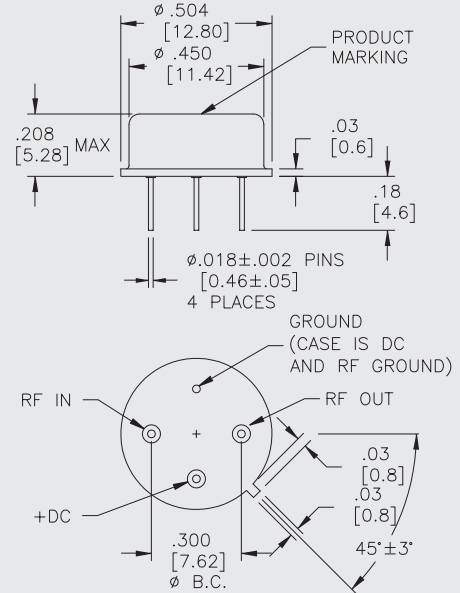
### ABSOLUTE MAXIMUM RATINGS

Storage Temperature .....	-62 to +125 °C
Maximum Case Temperature .....	+125 °C
Maximum DC Voltage .....	+10 Volts
Maximum Continuous RF Input Power .....	+22 dBm
Maximum Short Term Input Power (1 Minute Max.) .....	+25 dBm
Maximum Peak Power (3 μsec Max.) .....	+28 dBm
Burn-in Temperature .....	+125°C
Thermal Resistance <sup>1</sup> (θjc) .....	24°C/Watt
Junction Temperature Rise Above Case (Tjc) .....	10.2°C

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

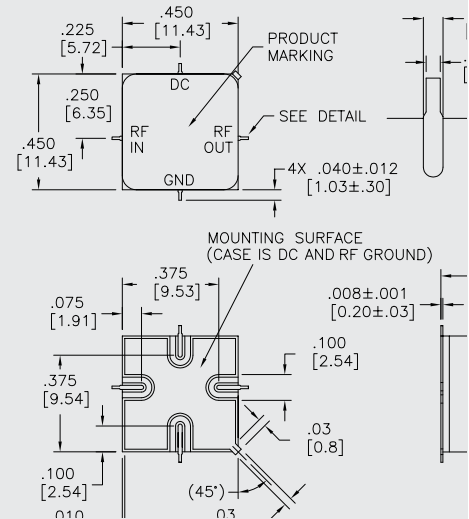
### AC688

#### TO-8 Package for Amplifiers



### AS688

#### SMT0-8 Package for Amplifiers



DIMENSIONS ARE IN INCHES [MILLIMETERS]