

**AC345
AC347****5 TO 250 MHz
TO-8 CASCADABLE AMPLIFIERS****Typical Values**

	AC345	AC347
Low Noise Figure	+2.0 dB	+2.3 dB
High Third Order I.P.	+25.0 dBm	+28.0 dBm
Medium Output Level	+12.0 dBm	+15.5 dBm
Low Current Consumption	30 mA	46 mA
High Performance Thin Film Standard Size TO-8		

SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50° C	-55 to +85° C
Frequency (Min.)	5-300 MHz	5-250 MHz	5-250 MHz
Small Signal Gain (Min.)	13.0 dB	12.5 dB	12.0 dB
Gain Flatness (Max.)	±0.25 dB	±0.5 dB	±0.7 dB
Noise Figure (Max.)	AC345	2.0 dB	2.5 dB
	AC347	2.3 dB	2.7 dB
SWR (Max.)	Input	<1.4:1	1.6:1
	Output	<1.2:1	1.3:1
Power Output (Min.) @ 1dB comp	AC345	+12.0 dBm	+11.0 dBm
	AC347	+15.5 dBm	+14.5 dBm
DC Current (Max.)	AC345	30 mA	34 mA
	AC347	46 mA	50 mA

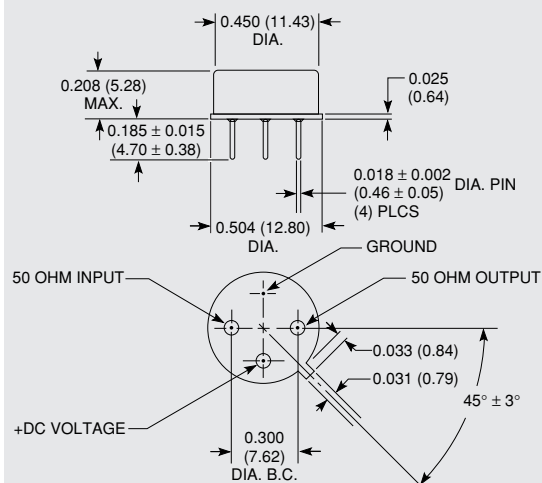
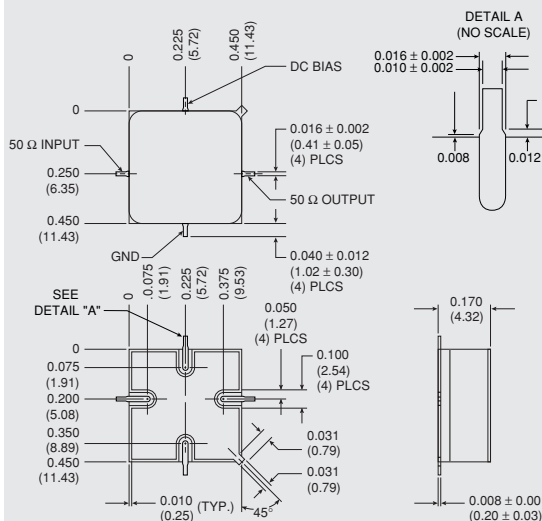
* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE**Typical @ 25° C**

	AC345	AC347
Second Order Harmonic Intercept Point	+39 dBm	+47 dBm
Second Order Two Tone Intercept Point	+33 dBm	+41 dBm
Third Order Two Tone Intercept Point	+25 dBm	+28 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.)	50 Milliwatts
Maximum Peak Power (3 μsec Max.)	0.5 Watt
Burn-in Temperature	+105° C
Thermal Resistance¹ (θjc; AC345)	+20° C/Watt
Thermal Resistance¹ (θjc; AC347)	+49° C/Watt
Junction Temperature Rise Above Case (Tjc; AC345) ...	+15.0° C
Junction Temperature Rise Above Case (Tjc; AC347)	+25.2° C

¹Thermal resistance is based on total power dissipation.**AC345/AC347****TO-8 Package for Amplifiers****AS345/AS347****SMT0-8 Package for Amplifiers**

If DC is present on RF input/output, this model requires additional external blocking capacitors.

DIMENSIONS ARE IN INCHES (MILLIMETERS)