

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		

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SPECIFICATIONS*

Parameter	Typical	Guaranteed		
		0 to 50° C	-55 to +85° C	5-250 MHz
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 AC347	2.0 dB 2.3 dB	2.5 dB 2.7 dB	3.0 dB 3.2 dB
SWR (Max.)	Input Output	<1.4:1 <1.2:1	1.6:1 1.3:1	1.7:1 1.5:1
Power Output (Min.) @ 1dB comp	AC345 AC347	+12.0 dBm +15.5 dBm	+11.0 dBm +14.5 dBm	+10.5 dBm +14.0 dBm
DC Current (Max.)	AC345 AC347	30 mA 46 mA	34 mA 50 mA	38 mA 54 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

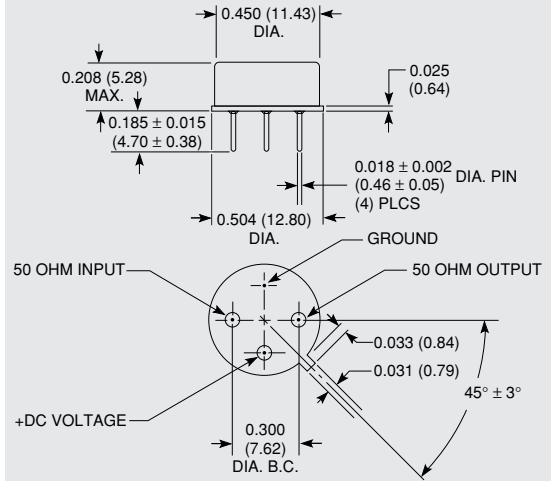
ABSOLUTE MAXIMUM RATINGS

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 Resistance ¹ (θjc; AC345).....	+20° C/Watt
Thermal Resistance ¹ (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.

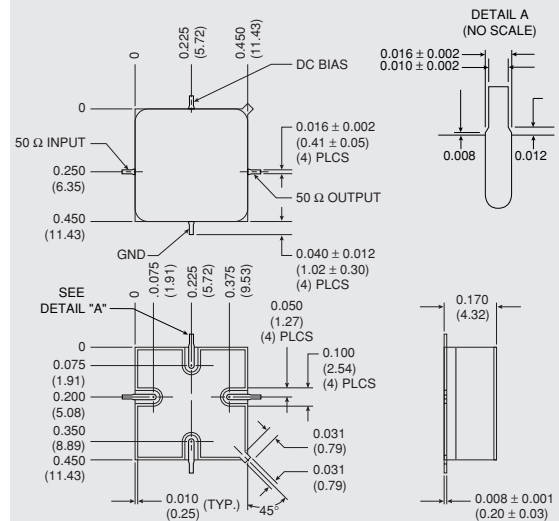
AC345/AC347

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)