

# A5P8250

## 2 TO 8 GHz SOLID STATE POWER AMPLIFIER

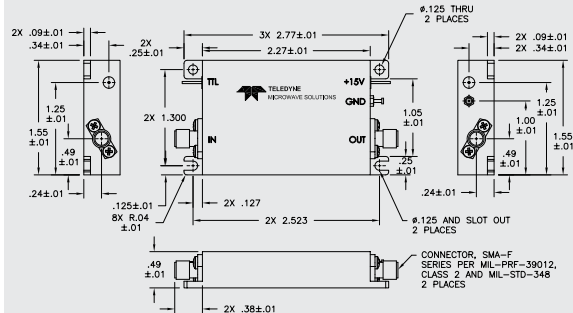
*Typical Values*

<b>High Gain</b> .....	<b>40.0 dB</b>
<b>High Output Level</b> .....	<b>1 Watt</b>
<b>High Third Order I.P.</b> .....	<b>+42 dBm</b>
<b>Supply Voltage Internal Regulated</b>	
<b>Ultra-Fast TTL Control Response</b> .....	<b>20 ns</b>
<b>Temperature Compensation for Low Gain Drift over Temp.</b>	
<b>High Performance Thin Film</b>	
<b>Power Pack SMA Package</b>	

**A5P8250**

### A5P8250

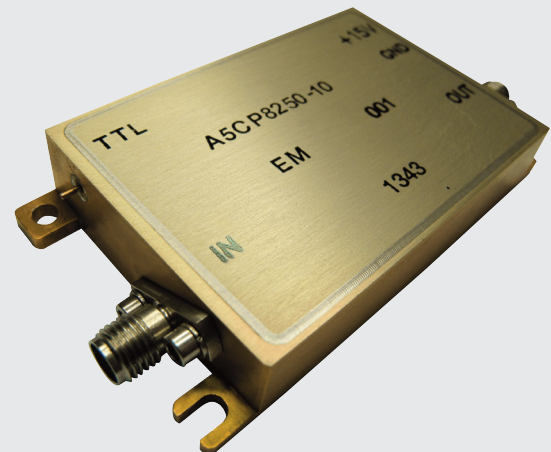
**Power Pack SMA Case  
(five-stage)**



## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	2-8 GHz	2.5-8 GHz	2.5-8 GHz
Small Signal Gain (Min.)	40.0 dB	40.0 dB	40.0 dB
Gain Flatness (Max.)	±0.5 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)	4.4 dB	4.5 dB	4.7 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp. 2-8 GHz	+29.0 dBm	+29.0 dBm	+29.0 dBm
Reverse Isolation	55 dB	—	—
DC Current (Max.)	680 mA	680 mA	750 mA

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



## INTERMODULATION PERFORMANCE

*Typical @ 25 °C*

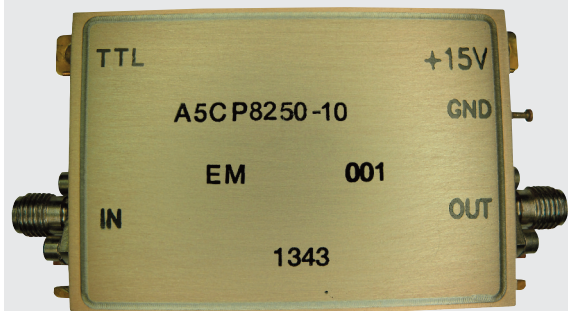
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<b>Second Order Harmonic Intercept Point</b> .....	<b>+64 to +55 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+58 to +49 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+42 to +37 dBm</b>

## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	<b>-62 to +125 °C</b>
<b>Maximum Case Temperature</b> .....	<b>+125 °C</b>
<b>Maximum DC Voltage</b> .....	<b>+22 Volts</b>
<b>Maximum Continuous RF Input Power</b> .....	<b>+23 dBm</b>
<b>Burn-in Temperature</b> .....	<b>+105 °C</b>
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	<b>+5.5 °C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	<b>+56 °C</b>

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]

# Power Pack SMA Package (5-stage)

