

# AGS555

## 10 TO 500 MHz SMT0-8 GAIN CONTROL AMPLIFIER

**Typical Values**

	<b>AGS555</b>
High Gain .....	27.0 dB
AGC Range (Vc = 0 to 5) .....	+30.0 dB
High Performance Thin Film Surface Mount TO-8 Package	

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	5-600 MHz	10-500 MHz	10-500 MHz
Gain (Min.)†	27.0 dB	26.0 dB	25.5 dB
Gain Flatness (Max.)†	±0.5 dB	±0.7 dB	±0.8 dB
AGC Range (Min.)	30 dB	26 dB	—
Noise Figure (Max.)†	5.0 dB	6.0 dB	6.5 dB
SWR (Max.) Input/Output	1.6:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.†	+11.5 dBm	+10.0 dBm	+7.0 dBm
Response Time Full AGC	<10 µsec	12 µsec	12 µsec
DC Current (Max.) Bias	45 mA	51 mA	55 mA
DC Current (Max.) Vc <sup>^</sup>	0 to 10 mA	15 mA	18 mA

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

<sup>^</sup>AGC Voltage: 0 to +5 Volts. †@ V<sub>CONTR.</sub> = 0 Volts.

### INTERMODULATION PERFORMANCE

**Typical @ 25 °C**

	<b>AGS555</b>
Second Order Harmonic Intercept Point .....	36 dBm
Second Order Two Tone Intercept Point .....	30 dBm
Third Order Two Tone Intercept Point .....	20 dBm

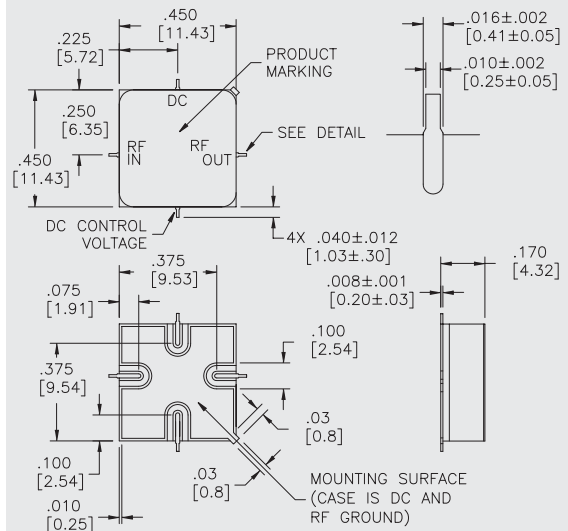
### ABSOLUTE MAXIMUM RATINGS

Storage Temperature .....	-62 to 125 °C
Maximum Case Temperature .....	+125 °C
Maximum DC Voltage .....	+10 Volts
Maximum Continuous RF Input Power .....	+10 dBm
Maximum Short Term Input Power (1 Minute Max.) .....	50 Milliwatts
Maximum Peak Power (3 µsec Max.) .....	0.5 Watt
Burn-in Temperature .....	+125°C
Thermal Resistance <sup>1</sup> (θjc) .....	+39 °C/Watt
Junction Temperature Rise Above Case (Tjc) .....	+12.3 °C

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

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#### SMT0-8 Package for Gain Control Amplifier



DIMENSIONS ARE IN INCHES [MILLIMETERS]