

# AGS555

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

Typical Values	AGS555
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	+9.5 dBm
Response Time Full AGC	<10 usec	—	—
DC Current (Max.) Bias	45 mA	48 mA	51 mA
DC Current (Max.) Vc^	0 to 10 mA	—	—

\* Measured in a 50-ohm system at +5 Vdc unless otherwise specified.  
^AGC Voltage: 0 to +5 Volts.

### INTERMODULATION PERFORMANCE

Typical @ 25° C	AGS555
Second Order Harmonic Intercept Point	36 dBm
Second Order Two Tone Intercept Point	30 dBm
Third Order Two Tone Intercept Point	20 dBm

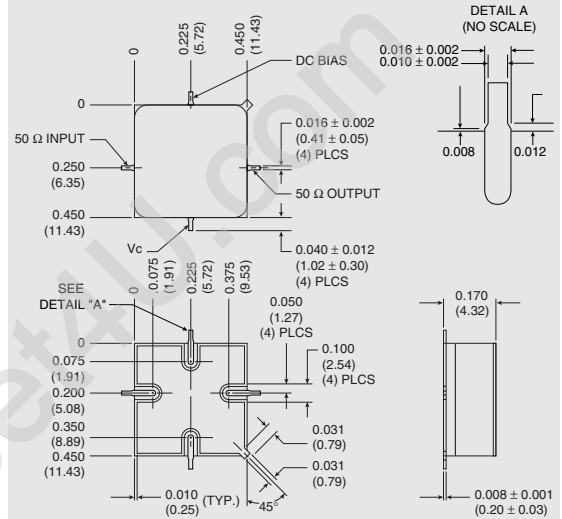
### ABSOLUTE MAXIMUM RATINGS

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



### Switching Speed

Not Yet Available

DIMENSIONS ARE IN INCHES (MILLIMETERS)