



AH212

1 Watt High Linearity, High Gain InGaP HBT Amplifier

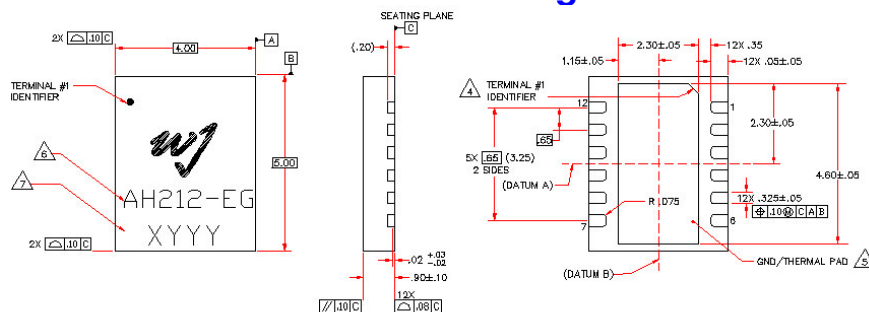
The Communications Edge™

Product Information

AH212-EG (Lead-Free QFN 4x5 mm Package) Mechanical Information

This package is lead-free/green/RoHS-compliant. The plating material on the leads is Matte Tin. It is compatible with both lead-free (maximum 260 °C reflow temperature) and lead (maximum 245 °C reflow temperature) soldering processes.

Outline Drawing



NOTES:

- EXCEPT WHERE NOTED, THIS PART OUTLINE CONFORMS TO JEDEC STANDARD MO-229, ISSUE C (VARIATION Y40C) FOR THERMALLY ENHANCED PLASTIC VERY THIN FINE PITCH QUAD FLAT NO LEAD PACKAGE (QFN).
- DIMENSIONING & TOLERANCING CONFORM TO ASME Y14.4M-1994.
- ALL DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.

- THE TERMINAL #1 IDENTIFIER AND TERMINAL NUMBERING CONVENTION CONFORM TO JEDEC JES-1 SPP-012.
- COPLANARITY APPLIES TO THE EXPOSED GROUND/THERMAL PAD AS WELL AS THE TERMINALS.
- PART NUMBER
- ALPHA-NUMERIC LOT CODE.

Product Marking

The component will be marked with an "AH212-EG" designator with an alphanumeric lot code on the top surface of the package.

Tape and reel specifications for this part are located on the website in the "Application Notes" section.

ESD / MSL Information



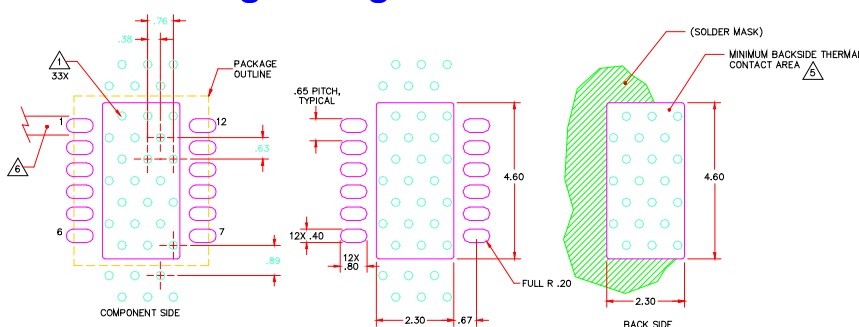
Caution! ESD sensitive device.

ESD Rating: Class 1B
Value: Passes $\geq 500V$ to $<1000V$
Test: Human Body Model (HBM)
Standard: JEDEC Standard JESD22-A114

ESD Rating: Class IV
Value: Passes $\geq 2000V$ min.
Test: Charged Device Model (CDM)
Standard: JEDEC Standard JESD22-C101

MSL Rating: Level 2 at $+260^{\circ}C$ convection reflow
Standard: JEDEC Standard J-STD-020

Mounting Configuration / Land Pattern



Thermal Specifications

Parameter	Rating
Operating Case Temperature	-40 to $+85^{\circ}C$
Thermal Resistance ⁽¹⁾ , R _{th}	$33^{\circ}C/W$
Junction Temperature ⁽²⁾ , T _j	$156^{\circ}C$

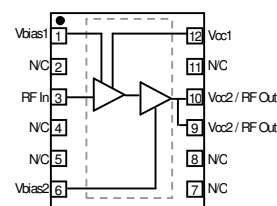
Notes:

- The thermal resistance is referenced from the junction-to-case at a case temperature of $85^{\circ}C$. T_j is a function of the voltage and the current applied. It can be calculated by:

$$T_{jc} = T_{case} + R_{th} * V_{cc} * I_{cc}$$

- This corresponds to the typical biasing condition of $+5V$, $400mA$ at an $85^{\circ}C$ case temperature.

Functional Pin Layout



Function	Pin No.
Vcc1	12
Input	3
Output / Vcc2	9, 10
Vbias1	1
Vbias2	6
GND	Backside Paddle
N/C or GND	2, 4, 5, 7, 8, 11

Specifications and information are subject to change without notice.