



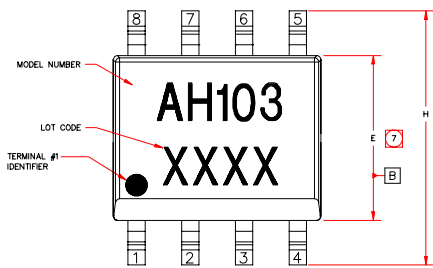
AH103

High Gain, High Linearity 1/2 Watt Amplifier

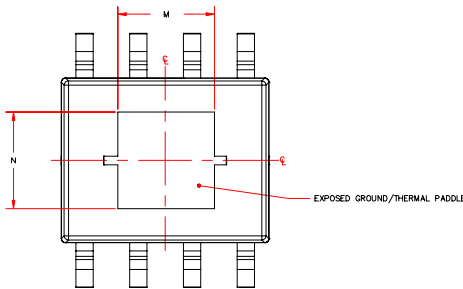
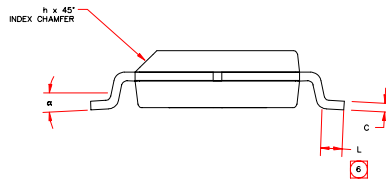
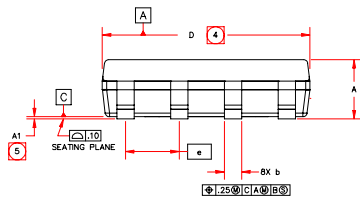
The Communications Edge™

Product Information

Outline Drawing



- NOTES:
- EXCEPT WHERE NOTED, THIS PART OUTLINE CONFORMS TO JEDEC STANDARD MS-012, ISSUE C FOR SMALL OUTLINE (SO) PERIPHERAL TERMINALS 3.75mm BODY WIDTH (PLASTIC).
 - DIMENSIONING & TOLERANCING CONFORM TO ASME Y14.4M-1994.
 - ALL DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.
 - DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS, WHICH SHALL NOT EXCEED .15mm(.006in) PER SIDE.
 - DEVIATION FROM JEDEC MS-012 STANDARD.
 - LENGTH OF TERMINAL FOR SOLDERING TO A SUBSTRATE.
 - DOES NOT INCLUDE INTER-LEAD FLASH OR PROTRUSIONS, WHICH SHALL NOT EXCEED .25mm(.010in) PER SIDE.



SYMBOL	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	1.30	1.50	.051	.059
A1	0	.10	0	.004
b	.38	.43	.015	.017
C	.18	.23	.007	.009
D	4.80	5.00	.189	.197
E	3.80	4.00	.150	.157
e	1.27 BSC		.050 BSC	
H	5.80	6.20	.228	.244
h	.25	.50	.01	.02
L	.40	1.27	.016	.050
M	2.03	2.54	.080	.100
N	2.03	2.54	.080	.100
a	0	8*	0	8*

Product Marking

The component will be marked with an "AH103" designator followed by a four- or five-digit alphanumeric lot code on the top surface of the package. Tape and reel specifications for this part is located on the website in the "Application Notes" section.

ESD / MSL Information



Caution! ESD sensitive device.

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

ESD Classification: Class IV
Value: Passes ≥ 1000 V
Test: Charged Device Model (CDM)
Standard: JEDEC Standard JESD22-C101

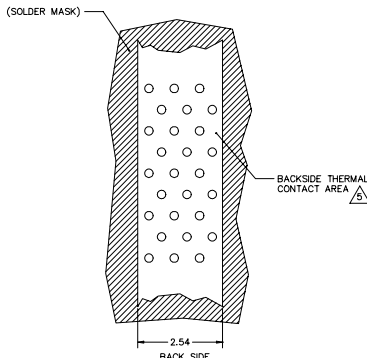
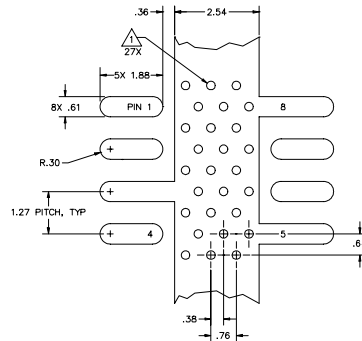
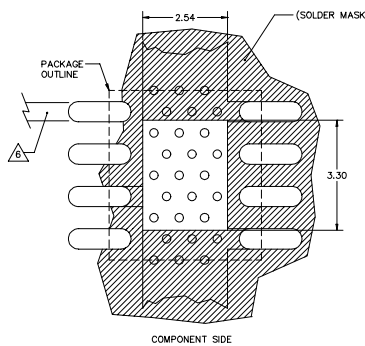
MSL Rating: Level 1 at +25 °C convection reflow
Standard: JEDEC Standard J-STD-020B

Functional Pin Layout

Pin	Function
1	Amp2 input
2	Amp1 output / Bias Amp1
3	Ground
4	RF input (Amp1 input)
5	Ground
6	RF output (Amp2 output)
7	Bias Amp2
8	Ground

The backside paddle is the Source and should be grounded for thermal and electrical purposes. All other pins should be grounded on the PCB.

Mounting Configuration / Land Pattern



- NOTES:
- GROUND/THERMAL VIAS ARE CRITICAL FOR THE PROPER PERFORMANCE OF THIS DEVICE. VIAS SHOULD USE A .35mm (.0135") DIAMETER DRILL AND HAVE A FINAL, PLATED THRU DIAMETER OF .25mm (.010").
 - ADD AS MUCH COPPER AS POSSIBLE TO INNER AND OUTER LAYERS NEAR THE PART TO ENSURE OPTIMAL THERMAL PERFORMANCE.
 - TO ENSURE RELIABLE OPERATION, DEVICE GROUND PADDLE-TO-GROUND PAD SOLDER JOINT IS CRITICAL.
 - ADD MOUNTING SCREWS NEAR THE PART TO FASTEN THE BOARD TO A HEATSINK. ENSURE THAT THE GROUND/THERMAL VIA REGION CONTACTS THE HEATSINK.
- FOR OPTIMAL THERMAL PERFORMANCE, EXPOSE SOLDERMASK ON BACKSIDE WHERE IT CONTACTS THE HEATSINK.
- RF TRACE WIDTH DEPENDS UPON THE PC BOARD MATERIAL AND CONSTRUCTION.
- USE 1 OZ. COPPER MINIMUM.
 - ALL DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.

Specifications and information are subject to change without notice