



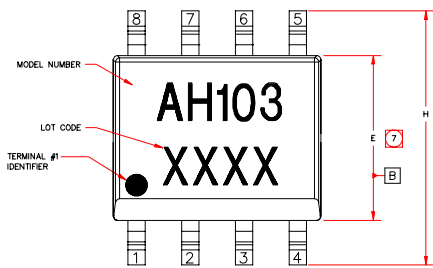
AH103

High Gain, High Linearity 1/2 Watt Amplifier

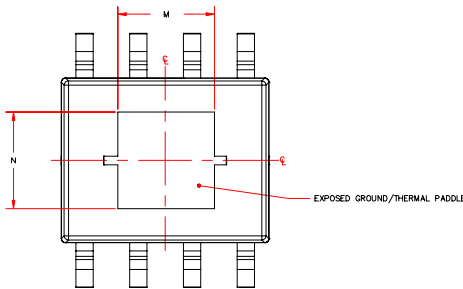
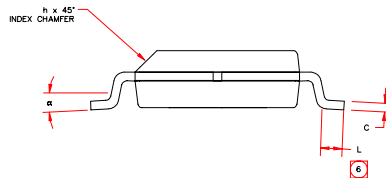
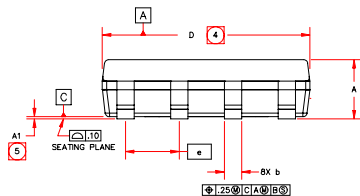
The Communications Edge™

Product Information

Outline Drawing

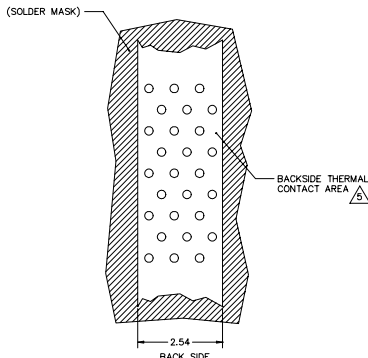
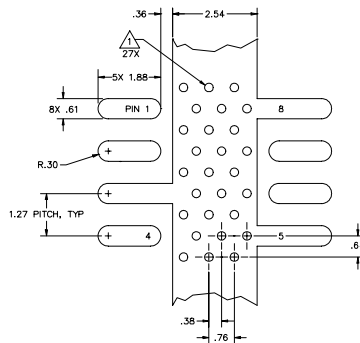
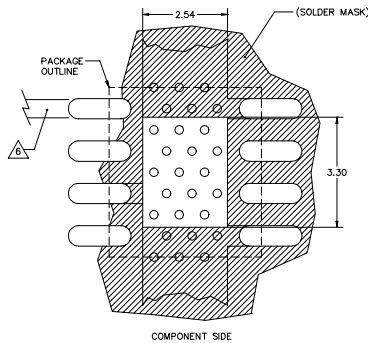


- NOTES:
- EXCEPT WHERE NOTED, THIS PART OUTLINE CONFORMS TO JEDEC STANDARD MS-012, ISSUE C FOR SMALL OUTLINE (SO) PERIPHERAL TERMINALS 3.75mm BODY WIDTH (PLASTIC).
 - DIMENSIONING & TOLERANCING CONFORM TO ASME Y14.4M-1994.
 - ALL DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.
 - DOES NOT INCLUDE 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*

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.

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 $+25^\circ\text{C}$ 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.

Specifications and information are subject to change without notice