REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

Prepared in accordance with ASME Y14.24

Vendor item drawing

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PMIC N/A	**PREPARED BY** RICK OFFICER	**DLA LAND AND MARITIME** **COLUMBUS, OHIO 43218-3990** **http://www.landandmaritime.dla.mil/**
Original date of drawing YY-MM-DD 13-07-02	**CHECKED BY** RAJESH PITHADIA	**TITLE** MICROCIRCUIT, LINEAR, LOW POWER OUTPUT AMPLIFIERS, MONOLITHIC SILICON
	APPROVED BY CHARLES F. SAFFLE	
	SIZE **A** / **CODE IDENT. NO.** **16236**	**DWG NO.** **V62/13614**
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AMSC N/A

5962-V057-13

1. SCOPE

1.1 Scope. This drawing documents the general requirements of a high performance low power output amplifiers microcircuit, with an operating temperature range of -55°C to +125°C.

1.2 Vendor Item Drawing Administrative Control Number. The manufacturer's PIN is the item of identification. The vendor item drawing establishes an administrative control number for identifying the item on the engineering documentation:

V62/13614	-	01	X	E
Drawing number		Device type (See 1.2.1)	Case outline (See 1.2.2)	Lead finish (See 1.2.3)

1.2.1 Device type(s).

Device type	Generic	Circuit function
01	ADA4897-1-EP	Single low power output amplifier
02	ADA4897-2-EP	Dual low power output amplifier

1.2.2 Case outline(s). The case outline(s) are as specified herein.

Outline letter	Number of pins	JEDEC PUB 95	Package style
X	6	MO-178-AB	Plastic small outline package
Y	10	MO-187-BA	Plastic small outline package

1.2.3 Lead finishes. The lead finishes are as specified below or other lead finishes as provided by the device manufacturer:

Finish designator	Material
A	Hot solder dip
B	Tin-lead plate
C	Gold plate
D	Palladium
E	Gold flash palladium
Z	Other

1.3 Absolute maximum ratings. 1/

Supply voltage (V_S) ..... 11 V
Common mode input voltage (V_{CM}) ..... $-V_S$ – 0.7 V to $+V_S$ + 0.7 V
Differential input voltage ..... ±0.7 V
Power dissipation (P_D) :
  Device type 01 ..... 166.6 mW 2/
  Device type 02 ..... 119.0 mW 2/
Storage temperature range (T_{STG}) ..... -65°C to +125°C
Lead temperature (soldering 10 seconds) ..... +300°C
Junction temperature range (T_J) ..... +150°C

1.4 Recommended operating conditions. 3/

Supply voltage range (V_S) ..... -5 V to +5 V
Operating free-air temperature range (T_A) ..... -55°C to +125°C

1.5 Thermal characteristics.

Thermal resistance, junction to ambient (θ_{JA}):
  X package ..... 150°C/W
  Y package ..... 210°C/W

1/ Stresses beyond those listed under “absolute maximum rating” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

2/ For device type 01, power dissipation (P_D) = (T_J max – T_A) / θ_{JA} = (150 – 125) / 150 = 0.16666 W.
For device type 02, power dissipation (P_D) = (T_J max – T_A) / θ_{JA} = (150 – 125) / 210 = 0.1190 W.

3/ Use of this product beyond the manufacturers design rules or stated parameters is done at the user’s risk. The manufacturer and/or distributor maintain no responsibility or liability for product used beyond the stated limits.

2. APPLICABLE DOCUMENTS

JEDEC Solid State Technology Association

JEDEC PUB 95 – Registered and Standard Outlines for Semiconductor Devices

(Applications for copies should be addressed to the Electronic Industries Alliance, 2500 Wilson Boulevard, Arlington, VA 22201-3834 or online at http://www.jedec.org)

3. REQUIREMENTS

3.1 Marking. Parts shall be permanently and legibly marked with the manufacturer's part number as shown in 6.3 herein and as follows:

A. Manufacturer's name, CAGE code, or logo
B. Pin 1 identifier
C. ESDS identification (optional)

3.2 Unit container. The unit container shall be marked with the manufacturer's part number and with items A and C (if applicable) above.

3.3 Electrical characteristics. The maximum and recommended operating conditions and electrical performance characteristics are as specified in 1.3, 1.4, and table I herein.

3.4 Design, construction, and physical dimension. The design, construction, and physical dimensions are as specified herein.

3.5 Diagrams.

3.5.1 Case outlines. The case outlines shall be as shown in 1.2.2 and figure 1.

3.5.2 Terminal connections. The terminal connections shall be as shown in figure 2.

TABLE I. Electrical performance characteristics. 1/ 2/

Test	Symbol	Conditions $V_S = \pm 5$ V, G = +1, R_L = 1 kΩ to ground, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Dynamic performance section.							
-3 dB bandwidth	BW	G = +1, V_{OUT} = 0.02 V_{PP}	+25°C	01, 02	230 typical		MHz
		G = +1, V_{OUT} = 2 V_{PP}			30 typical		
		G = +2, V_{OUT} = 0.02 V_{PP}			90 typical		
Bandwidth for 0.1 dB flatness		G = +2, V_{OUT} = 2 V_{PP}, R_L = 100 Ω	+25°C	01, 02	7 typical		MHz
Slew rate	SR	G = +2, V_{OUT} = 6 V step	+25°C	01, 02	120 typical		V/μs
Settling time to 0.1%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	45 typical		ns
Settling time to 0.01%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	90 typical		ns
Noise / harmonic performance section.							
Harmonic distortion	SFDR	V_{OUT} = 2 V_{PP}, f_C = 100 kHz	+25°C	01, 02	-115 typical		dBc
		V_{OUT} = 2 V_{PP}, f_C = 1 MHz			-93 typical		
		V_{OUT} = 2 V_{PP}, f_C = 2 MHz			-80 typical		
		V_{OUT} = 2 V_{PP}, f_C = 5 MHz			-61 typical		
Input voltage noise		f = 10 Hz	+25°C	01, 02	2.4 typical		nV / $\sqrt{Hz}$
		f = 100 kHz			1 typical		
Input current noise		f = 10 Hz	+25°C	01, 02	11 typical		pA / $\sqrt{Hz}$
		f = 100 kHz			2.8 typical		
0.1 Hz to 10 Hz noise		G = +101, R_F = 1 kΩ, R_G = 10 Ω	+25°C	01, 02	99 typical		nV_{PP}

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions $V_S = \pm 5$ V, G = +1, R_L = 1 kΩ to ground, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
DC performance section.							
Input offset voltage	V_{IO}		+25°C	01, 02	-500	+500	µV
					-28 typical		
Input offset voltage drift	ΔV_{IO}		+25°C	01, 02	0.2 typical		µV / °C
Input bias current	I_{IB}		+25°C	01, 02	-17	-4	µA
					-11 typical		
Input bias current drift	ΔI_{IB}		+25°C	01, 02	3 typical		nA / °C
Input bias offset current	I_{IBO}		+25°C	01, 02	-0.6	+0.6	µA
					-0.02 typical		
Open loop gain	A_{OL}	V_{OUT} = -4 V to +4 V	+25°C	01, 02	100		dB
					110 typical		
Input characteristics section.							
Input resistance, common mode	R_{IN}		+25°C	01, 02	10 typical		MΩ
Input resistance, differential	R_{IN}		+25°C	01, 02	10 typical		kΩ
Input capacitance, common mode	C_{IN}		+25°C	01, 02	3 typical		pF
Input capacitance, differential	C_{IN}		+25°C	01, 02	11 typical		pF
Input common mode voltage range	V_{INR}		+25°C	01, 02	-4.9 to +4.1 typical		V
Common mode rejection ratio	CMRR	V_{CM} = -2 V to +2 V	+25°C	01, 02	-92		dB
					-120 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions V_S = ±5 V, G = +1, R_L = 1 kΩ to ground, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Output characteristics section.							
Output overdrive recovery time		V_{IN} = ±5 V, G = + 2	+25°C	01, 02	81 typical		ns
Positive output voltage swing		R_L = 1 kΩ	+25°C	01, 02	4.85		V
					4.96 typical		
		R_L = 100 Ω			4.5		
					4.73 typical		
Negative output voltage swing		R_L = 1 kΩ	+25°C	01, 02	-4.85		V
					-4.97 typical		
		R_L = 100 Ω			-4.5		
					-4.84 typical		
Output current	I_{OUT}	SFDR = -45 dBc	+25°C	01, 02	80 typical		mA
Short circuit current	I_{SC}	Sinking / sourcing	+25°C	01, 02	135 typical		mA
Capacitive load drive		30% overshoot, G = +2	+25°C	01, 02	39 typical		pF
Power supply section.							
Operating range			+25°C	01, 02	3 to 10 typical		V
Quiescent current per amplifier			+25°C	01, 02	2.8	3.2	mA
					3.0 typical		
		$\overline{\text{DISABLE}}$ = -5 V				0.25	
					0.13 typical		
Power supply rejection ratio	+PSRR	$+V_S$ = 4 V to 6 V, $-V_S$ = -5 V	+25°C	01, 02	-96		dB
					-125 typical		
	-PSRR	$+V_S$ = 5 V, $-V_S$ = -4 V to -6 V			-96		
					-121 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions V_S = ±5 V, G = +1, R_L = 1 kΩ to ground, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
$\overline{\text{DISABLE}}$ pin section.							
$\overline{\text{DISABLE}}$ voltage		Enabled	+25°C	01, 02	>+V_S – 0.5 typical		V
		Disabled			<+V_S – 2 typical		
Input current, enabled	I_{IN}	$\overline{\text{DISABLE}}$ = +5 V	+25°C	01, 02	-1.2 typical		µA
Input current, disabled	I_{IN}	$\overline{\text{DISABLE}}$ = -5 V	+25°C	01, 02	-40 typical		µA
Switching speed, enabled			+25°C	01, 02	0.25 typical		µs
Switching speed, disabled			+25°C	01, 02	12 typical		µs

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +5 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Dynamic performance section.							
-3 dB bandwidth	BW	G = +1, V_{OUT} = 0.02 V_{PP}	+25°C	01, 02	230 typical		MHz
		G = +1, V_{OUT} = 2 V_{PP}			30 typical		
		G = +2, V_{OUT} = 0.02 V_{PP}			90 typical		
Bandwidth for 0.1 dB flatness		G = +2, V_{OUT} = 2 V_{PP}, R_L = 100 Ω	+25°C	01, 02	7 typical		MHz
Slew rate	SR	G = +2, V_{OUT} = 3 V step	+25°C	01, 02	100 typical		V/μs
Settling time to 0.1%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	45 typical		ns
Settling time to 0.01%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	95 typical		ns
Noise / harmonic performance section.							
Harmonic distortion	SFDR	V_{OUT} = 2 V_{PP}, f_C = 100 kHz	+25°C	01, 02	-115 typical		dBc
		V_{OUT} = 2 V_{PP}, f_C = 1 MHz			-93 typical		
		V_{OUT} = 2 V_{PP}, f_C = 2 MHz			-80 typical		
		V_{OUT} = 2 V_{PP}, f_C = 5 MHz			-61 typical		
Input voltage noise		f = 10 Hz	+25°C	01, 02	2.4 typical		nV / $\sqrt{Hz}$
		f = 100 kHz			1 typical		
Input current noise		f = 10 Hz	+25°C	01, 02	11 typical		pA / $\sqrt{Hz}$
		f = 100 kHz			2.8 typical		
0.1 Hz to 10 Hz noise		G = +101, R_F = 1 kΩ, R_G = 10 Ω	+25°C	01, 02	99 typical		nV_{PP}

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +5 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
DC performance section.							
Input offset voltage	V_{IO}		+25°C	01, 02	-500	+500	µV
					-30 typical		
Input offset voltage drift	ΔV_{IO}		+25°C	01, 02	0.2 typical		µV / °C
Input bias current	I_{IB}		+25°C	01, 02	-17	-4	µA
					-11 typical		
Input bias current drift	ΔI_{IB}		+25°C	01, 02	3 typical		nA / °C
Input bias offset current	I_{IBO}		+25°C	01, 02	-0.6	+0.6	µA
					-0.02 typical		
Open loop gain	A_{OL}	V_{OUT} = 0.5 V to 4.5 V	+25°C	01, 02	97		dB
					110 typical		
Input characteristics section.							
Input resistance, common mode	R_{IN}		+25°C	01, 02	10 typical		MΩ
Input resistance, differential	R_{IN}		+25°C	01, 02	10 typical		kΩ
Input capacitance, common mode	C_{IN}		+25°C	01, 02	3 typical		pF
Input capacitance, differential	C_{IN}		+25°C	01, 02	11 typical		pF
Input common mode voltage range	V_{INR}		+25°C	01, 02	0.1 to 4.1 typical		V
Common mode rejection ratio	CMRR	V_{CM} = 1 V to 4 V	+25°C	01, 02	-91		dB
					-118 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +5 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Output characteristics section.							
Output overdrive recovery time		V_{IN} = 0 V to 5 V, G = + 2	+25°C	01, 02	96 typical		ns
Positive output voltage swing		R_L = 1 kΩ	+25°C	01, 02	4.85		V
					4.98 typical		
		R_L = 100 Ω			4.8		
					4.88 typical		
Negative output voltage swing		R_L = 1 kΩ	+25°C	01, 02	0.15		V
					0.014 typical		
		R_L = 100 Ω			0.2		
					0.08 typical		
Output current	I_{OUT}	SFDR = -45 dBc	+25°C	01, 02	70 typical		mA
Short circuit current	I_{SC}	Sinking / sourcing	+25°C	01, 02	125 typical		mA
Capacitive load drive		30% overshoot, G = +2	+25°C	01, 02	39 typical		pF
Power supply section.							
Operating range			+25°C	01, 02	3 to 10 typical		V
Quiescent current per amplifier			+25°C	01, 02	2.6	2.9	mA
					2.8 typical		
		$\overline{\text{DISABLE}}$ = 0 V				0.18	
					0.05 typical		
Power supply rejection ratio	+PSRR	$+V_S$ = 4.5 V to 5.5 V, $-V_S$ = 0 V	+25°C	01, 02	-96		dB
					-123 typical		
	-PSRR	$+V_S$ = 5 V, $-V_S$ = -0.5 V to +0.5 V			-96		
					-121 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +5 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
$\overline{\text{DISABLE}}$ pin section.							
$\overline{\text{DISABLE}}$ voltage		Enabled	+25°C	01, 02	>+V_S – 0.5 typical		V
		Disabled			<+V_S – 2 typical		
Input current, enabled	I_{IN}	$\overline{\text{DISABLE}}$ = +5 V	+25°C	01, 02	-1.2 typical		µA
Input current, disabled	I_{IN}	$\overline{\text{DISABLE}}$ = 0 V	+25°C	01, 02	-20 typical		µA
Switching speed, enabled			+25°C	01, 02	0.25 typical		µs
Switching speed, disabled			+25°C	01, 02	12 typical		µs

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +3 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Dynamic performance section.							
-3 dB bandwidth	BW	G = +1, V_{OUT} = 0.02 V_{PP}	+25°C	01, 02	230 typical		MHz
		G = -1, V_{OUT} = 1 V_{PP}			45 typical		
		G = +2, V_{OUT} = 0.02 V_{PP}			90 typical		
Bandwidth for 0.1 dB flatness		G = +2, V_{OUT} = 2 V_{PP}, R_L = 100 Ω	+25°C	01, 02	7 typical		MHz
Slew rate	SR	G = +2, V_{OUT} = 1 V step	+25°C	01, 02	85 typical		V/μs
Settling time to 0.1%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	45 typical		ns
Settling time to 0.01%	t_S	G = +2, V_{OUT} = 2 V step	+25°C	01, 02	96 typical		ns
Noise / harmonic performance section.							
Harmonic distortion	SFDR	V_{OUT} = 2 V_{PP}, f_C = 100 kHz, G = +2	+25°C	01, 02	-105 typical		dBc
		V_{OUT} = 1 V_{PP}, f_C = 1 MHz, G = -1			-84 typical		
		V_{OUT} = 1 V_{PP}, f_C = 2 MHz, G = -1			-77 typical		
		V_{OUT} = 1 V_{PP}, f_C = 5 MHz, G = -1			-60 typical		
Input voltage noise		f = 10 Hz	+25°C	01, 02	2.3 typical		nV / $\sqrt{Hz}$
		f = 100 kHz			1 typical		
Input current noise		f = 10 Hz	+25°C	01, 02	11 typical		pA / $\sqrt{Hz}$
		f = 100 kHz			2.8 typical		
0.1 Hz to 10 Hz noise		G = +101, R_F = 1 kΩ, R_G = 10 Ω	+25°C	01, 02	99 typical		nV_{PP}

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +3 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
DC performance section.							
Input offset voltage	V_{IO}		+25°C	01, 02	-500	+500	µV
					-30 typical		
Input offset voltage drift	ΔV_{IO}		+25°C	01, 02	0.2 typical		µV / °C
Input bias current	I_{IB}		+25°C	01, 02	-17	-4	µA
					-11 typical		
Input bias current drift	ΔI_{IB}		+25°C	01, 02	3 typical		nA / °C
Input bias offset current	I_{IBO}		+25°C	01, 02	-0.6	+0.6	µA
					-0.02 typical		
Open loop gain	A_{OL}	V_{OUT} = 0.5 V to 2.5 V	+25°C	01, 02	95		dB
					108 typical		
Input characteristics section.							
Input resistance, common mode	R_{IN}		+25°C	01, 02	10 typical		MΩ
Input resistance, differential	R_{IN}		+25°C	01, 02	10 typical		kΩ
Input capacitance, common mode	C_{IN}		+25°C	01, 02	3 typical		pF
Input capacitance, differential	C_{IN}		+25°C	01, 02	11 typical		pF
Input common mode voltage range	V_{INR}		+25°C	01, 02	0.1 to 2.1 typical		V
Common mode rejection ratio	CMRR	V_{CM} = 1.1 V to 1.9 V	+25°C	01, 02	-90		dB
					-124 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +3 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
Output characteristics section.							
Output overdrive recovery time		V_{IN} = 0 V to 3 V, G = + 2	+25°C	01, 02	83 typical		ns
Positive output voltage swing		R_L = 1 kΩ	+25°C	01, 02	2.85		V
					2.97 typical		
		R_L = 100 Ω			2.8		
					2.92 typical		
Negative output voltage swing		R_L = 1 kΩ	+25°C	01, 02	0.15		V
					0.01 typical		
		R_L = 100 Ω			0.2		
					0.05 typical		
Output current	I_{OUT}	SFDR = -45 dBc	+25°C	01, 02	60 typical		mA
Short circuit current	I_{SC}	Sinking / sourcing	+25°C	01, 02	120 typical		mA
Capacitive load drive		30% overshoot, G = +2	+25°C	01, 02	39 typical		pF
Power supply section.							
Operating range			+25°C	01, 02	3 to 10 typical		V
Quiescent current per amplifier			+25°C	01, 02	2.5	2.9	mA
					2.7 typical		
		$\overline{\text{DISABLE}}$ = 0 V				0.15	
					0.035 typical		
Power supply rejection ratio	+PSRR	$+V_S$ = 2.7 V to 3.7 V, $-V_S$ = 0 V	+25°C	01, 02	-96		dB
					-121 typical		
	-PSRR	$+V_S$ = 3 V, $-V_S$ = -0.3 V to +0.7 V			-96		
					-120 typical		

See footnotes at end of table.

TABLE I. Electrical performance characteristics – Continued. 1/ 2/

Test	Symbol	Conditions 2/ V_S = +3 V, G = +1, R_L = 1 kΩ to midsupply, unless otherwise specified	Temperature, T_A	Device type	Limits		Unit
					Min	Max	
$\overline{\text{DISABLE}}$ pin section.							
$\overline{\text{DISABLE}}$ voltage		Enabled	+25°C	01, 02	>+V_S – 0.5 typical		V
		Disabled			<+V_S + 2 typical		
Input current, enabled	I_{IN}	$\overline{\text{DISABLE}}$ = +3 V	+25°C	01, 02	-1.2 typical		µA
Input current, disabled	I_{IN}	$\overline{\text{DISABLE}}$ = 0 V	+25°C	01, 02	-15 typical		µA
Switching speed, enabled			+25°C	01, 02	0.25 typical		µs
Switching speed, disabled			+25°C	01, 02	12 typical		µs

1/ Testing and other quality control techniques are used to the extent deemed necessary to assure product performance over the specified temperature range. Product may not necessarily be tested across the full temperature range and all parameters may not necessarily be tested. In the absence of specific parametric testing, product performance is assured by characterization and/or design.

2/ Products supplied to this drawing have been characterized across the military temperature range of -55°C to +125°C but, are only production tested at +25°C.

Case X

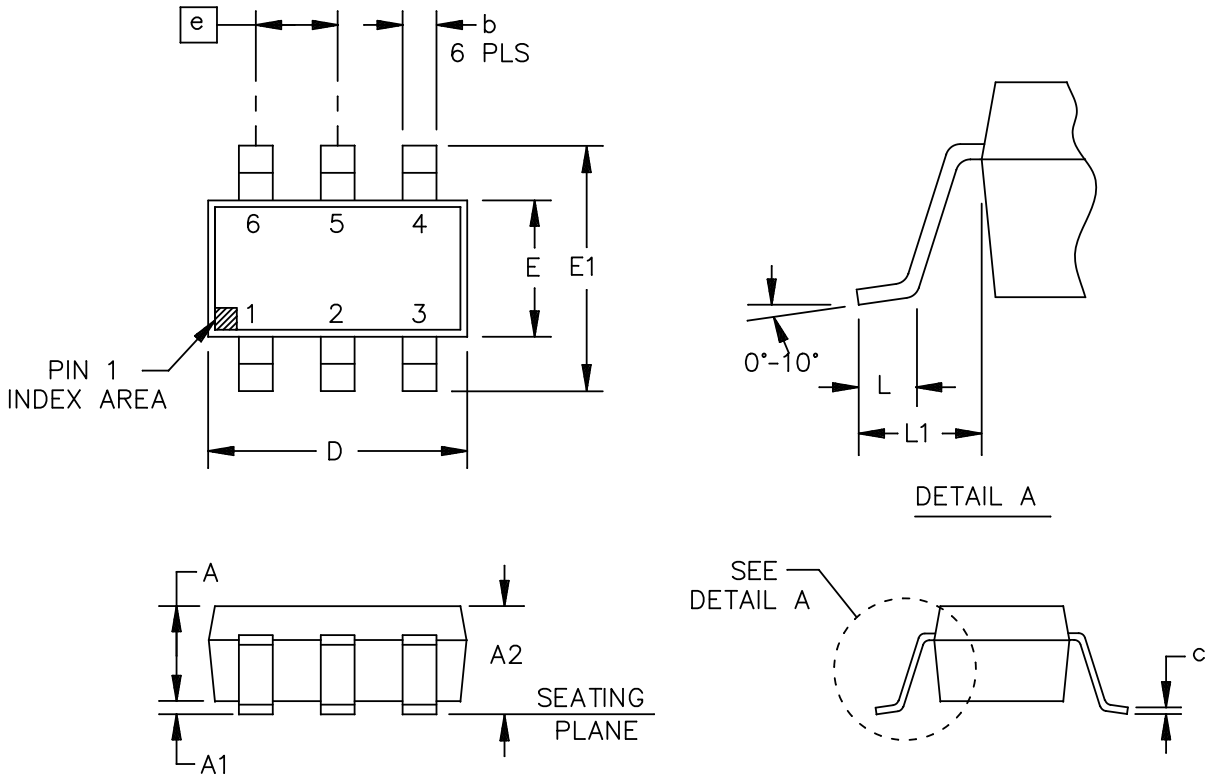

FIGURE 1. Case outlines.

DLA LAND AND MARITIME COLUMBUS, OHIO	SIZE A	CODE IDENT NO. 16236	DWG NO. V62/13614
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Symbol	Dimensions					
	Inches			Millimeters		
	Min	Med	Max	Min	Med	Max
A	0.035	0.045	0.051	0.90	1.15	1.30
A1	0.001	---	0.005	0.05	---	0.15
A2	0.037	---	0.057	0.95	---	1.45
b	0.011	---	0.019	0.30	---	0.50
c	0.003	---	0.007	0.08	---	0.20
D	0.110	0.114	0.118	2.80	2.90	3.00
E	0.059	0.062	0.066	1.50	1.60	1.70
E1	0.102	0.110	0.118	2.60	2.80	3.00
e	0.037 BSC			0.95 BSC		
L	0.013	0.017	0.021	0.35	0.45	0.55
L1	0.023 BSC			0.60 BSC		

NOTES:
1. Controlling dimensions are millimeter, inch dimensions are given for reference only.
2. Falls within reference to JEDEC MO-178-AB.

FIGURE 1. Case outlines - continued.

Case Y

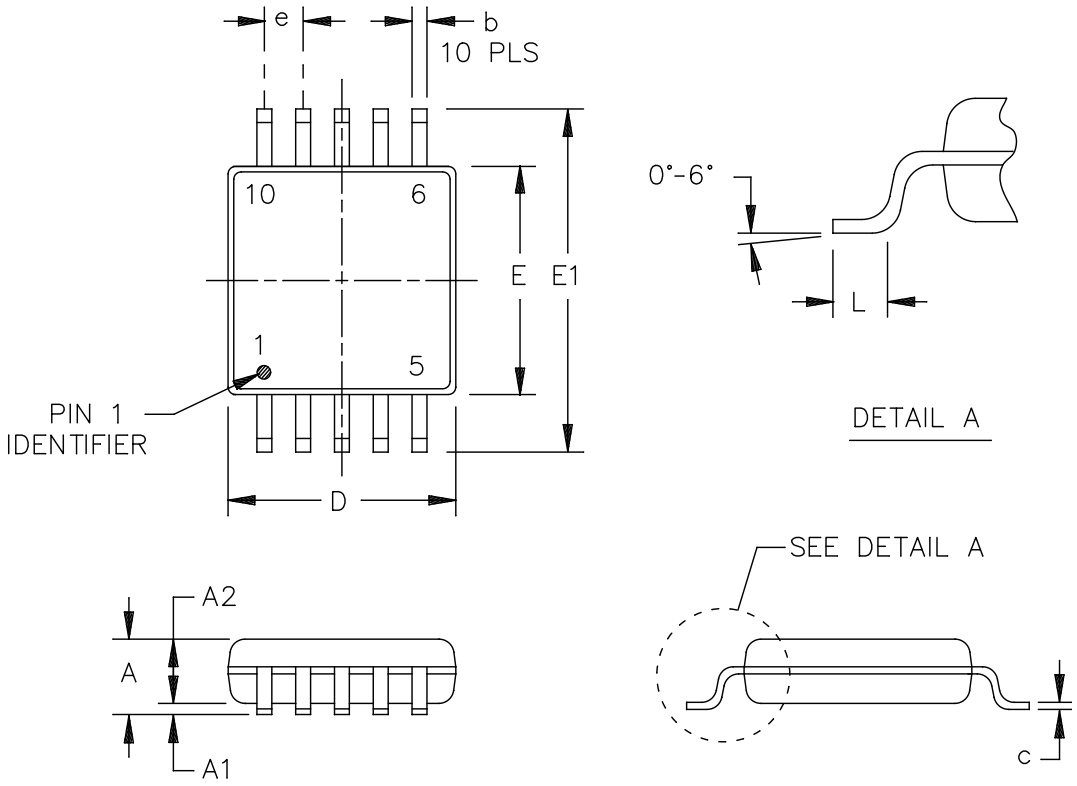

FIGURE 1. Case outlines - Continued.

Case Y – continued.

Symbol	Dimensions					
	Inches			Millimeters		
	Min	Med	Max	Min	Med	Max
A	---	---	0.043	---	---	1.10
A1	0.001	---	0.005	0.05	---	0.15
A2	0.029	0.033	0.037	0.75	0.85	0.95
b	0.05	---	0.011	0.15	---	0.30
c	0.005	---	0.009	0.13	---	0.23
D	0.114	0.118	0.122	2.90	3.00	3.10
E	0.114	0.118	0.122	2.90	3.00	3.10
E1	0.183	0.192	0.202	4.65	4.90	5.15
e	0.019 BSC			0.50 BSC		
L	0.015	0.021	0.027	0.40	0.55	0.70

NOTES:
1. Controlling dimensions are millimeter, inch dimensions are given for reference only.
2. Falls within reference to JEDEC MO-187-BA.

FIGURE 1. Case outlines - Continued.

Device type	01	
Case outline	X	
Terminal number	Terminal symbol	Description
1	OUT	Output.
2	$-V_S$	Negative supply.
3	+IN	Noninverting input.
4	-IN	Inverting input.
5	$\overline{\text{DISABLE}}$	Disable.
6	$+V_S$	Positive supply.

Device type	02	
Case outline	Y	
Terminal number	Terminal symbol	Description
1	OUT1	Output 1.
2	-IN1	Inverting input 1.
3	+IN1	Noninverting input 1.
4	$-V_S$	Negative supply.
5	$\overline{\text{DISABLE1}}$	Disable 1.
6	$\overline{\text{DISABLE2}}$	Disable 2.
7	+IN2	Noninverting input 2.
8	-IN2	Inverting input 2.
9	OUT2	Output 2.
10	$+V_S$	Positive supply.

FIGURE 2. Terminal connections.

4. VERIFICATION

4.1 Product assurance requirements. The manufacturer is responsible for performing all inspection and test requirements as indicated in their internal documentation. Such procedures should include proper handling of electrostatic sensitive devices, classification, packaging, and labeling of moisture sensitive devices, as applicable.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Preservation, packaging, labeling, and marking shall be in accordance with the manufacturer's standard commercial practices for electrostatic discharge sensitive devices.

6. NOTES

6.1 ESDS. Devices are electrostatic discharge sensitive and are classified as ESDS class 1 minimum.

6.2 Configuration control. The data contained herein is based on the salient characteristics of the device manufacturer's data book. The device manufacturer reserves the right to make changes without notice. This drawing will be modified as changes are provided.

6.3 Suggested source(s) of supply. Identification of the suggested source(s) of supply herein is not to be construed as a guarantee of present or continued availability as a source of supply for the item. DLA Land and Maritime maintains an online database of all current sources of supply at http://www.landandmaritime.dla.mil/Programs/Smcr/.

Vendor item drawing administrative control number 1/	Device manufacturer CAGE code	Vendor part number
V62/13614-01XE	24355	ADA4897-1SRJZ-EPR7
V62/13614-02YE	24355	ADA4897-2TRMZ-EP

1/ The vendor item drawing establishes an administrative control number for identifying the item on the engineering documentation.

CAGE code	Source of supply
24355	Analog Devices Route 1 Industrial Park P.O. Box 9106 Norwood, MA 02062 Point of contact: Raheen Business Park Limerick, Ireland