

REVISIONS

LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Added device type 02 through 09. Editorial changes throughout.	92-06-02	G. A. Lude
B	Updated drawing to the latest MIL-PRF-38534 requirements.	05-01-21	Raymond Monnin
C	Table I, Standby current drain change with line, add note 3 to the test description block, for all device types (6 places). Table I, Ripple rejection, conditions column, add V_{IN} condition for all device types. Table I, note 1, correct V_{IN} for -12 V output to $V_{IN} = -19$ V.	06-04-19	Raymond Monnin

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED

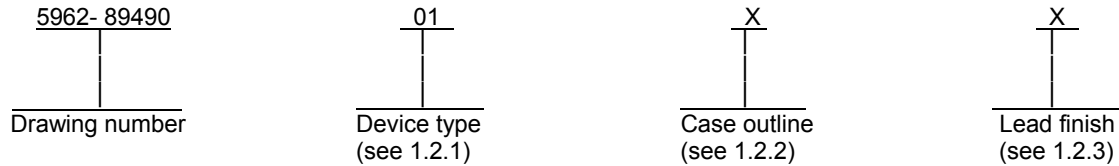
REV																				
SHEET																				
REV	C	C																		
SHEET	15	16																		
REV STATUS OF SHEETS	REV		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
	SHEET		1	2	3	4	5	6	7	8	9	10	11	12	13	14				

PMIC N/A	PREPARED BY Donald R. Osborne	<p align="center">DEFENSE SUPPLY CENTER COLUMBUS POST OFFICE BOX 3990 COLUMBUS, OHIO 43218-3990 http://www.dscc.dla.mil/</p>																		
<p align="center">STANDARD MICROCIRCUIT DRAWING</p> <p align="center">THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE</p> <p align="center">AMSC N/A</p>	CHECKED BY Robert M. Heber																			
	APPROVED BY D. M. Cool	<p align="center">MICROCIRCUIT, HYBRID, LINEAR, DUAL POSITIVE AND NEGATIVE 15-VOLT, 12-VOLT, AND 5-VOLT REGULATOR</p>																		
	DRAWING APPROVAL DATE 90-07-19																			
	REVISION LEVEL C	<table border="1"> <tr> <td>SIZE A</td> <td>CAGE CODE 67268</td> <td>5962-89490</td> </tr> </table>	SIZE A	CAGE CODE 67268	5962-89490															
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1. SCOPE

1.1 Scope. This drawing describes device requirements for class H hybrid microcircuits to be processed in accordance with MIL-PRF-38534 and a choice of case outlines and lead finishes are available and are reflected in the Part or Identifying Number (PIN).

1.2 PIN. The PIN shall be as shown in the following example:



1.2.1 Device type(s). The device type(s) identify the circuit function as follows:

<u>Device type</u>	<u>Generic number</u>	<u>Circuit function</u>
01	OM3909, SD11089	Dual, fixed, voltage regulator, +15 V output and -15 V output
02	OM3901, SD11081	Dual, fixed, voltage regulator, +5 V output and -5 V output
03	OM3902, SD11082	Dual, fixed, voltage regulator, +5 V output and -12 V output
04	OM3903, SD11083	Dual, fixed, voltage regulator, +5 V output and -15 V output
05	OM3904, SD11084	Dual, fixed, voltage regulator, +12 V output and -5 V output
06	OM3905, SD11085	Dual, fixed, voltage regulator, +12 V output and -12 V output
07	OM3906, SD11086	Dual, fixed, voltage regulator, +12 V output and -15 V output
08	OM3907, SD11087	Dual, fixed, voltage regulator, +15 V output and -5 V output
09	OM3908, SD11088	Dual, fixed, voltage regulator, +15 V output and -12 V output

1.2.2 Case outline(s). The case outline(s) are as designated in MIL-STD-1835 and as follows:

<u>Outline letter</u>	<u>Descriptive designator</u>	<u>Terminals</u>	<u>Package style</u>
X	See figure 1	5	Flange mount

1.2.3 Lead finish. The lead finish shall be as specified in MIL-PRF-38534.

1.3 Absolute maximum ratings. ^{1/} _{2/}

Input voltage (positive output).....	+35 V dc
Input voltage (negative output).....	-35 V dc
Thermal shutdown ($I_o = 5.0$ mA at rated V_{OUT}).....	+175°C
Power dissipation (P_D):	
$T_A = +25^\circ\text{C}$	3.0 W
$T_C = +25^\circ\text{C}$	17.5 W
Storage temperature range.....	-65°C to +150°C
Lead temperature (soldering, 10 seconds).....	+300°C
Thermal resistance, junction-to-case (θ_{JC}).....	3.0°C/W
Thermal resistance, junction-to-ambient (θ_{JA}).....	42°C/W
Junction temperature (T_J).....	+150°C

1.4 Recommended operating conditions.

Ambient operating temperature range (T_A).....	-55°C to +125°C
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^{1/} Stresses above the absolute maximum ratings may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability.
^{2/} Absolute maximum ratings apply to each regulator.

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2. APPLICABLE DOCUMENTS

2.1 Government specification, standards, and handbooks. The following specification, standards, and handbooks form a part of this drawing to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-38534 - Hybrid Microcircuits, General Specification for.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-883 - Test Method Standard Microcircuits.
 MIL-STD-1835 - Interface Standard for Electronic Component Case Outlines.

DEPARTMENT OF DEFENSE HANDBOOKS

MIL-HDBK-103 - List of Standard Microcircuit Drawings.
 MIL-HDBK-780 - Standard Microcircuit Drawings.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. In the event of a conflict between the text of this drawing and the references cited herein, the text of this drawing takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Item requirements. The individual item performance requirements shall be in accordance with MIL-PRF-38534.

3.2 Design, construction, and physical dimensions. The design, construction, and physical dimensions shall be as specified in MIL-PRF-38534 and herein.

3.2.1 Case outline(s). The case outline(s) shall be in accordance with 1.2.2 herein and figure 1.

3.2.2 Terminal connections. The terminal connections shall be as specified on figure 2.

3.3 Electrical performance characteristics. Unless otherwise specified herein, the electrical performance characteristics are as specified in table I and shall apply over the full specified operating temperature range.

3.4 Electrical test requirements. The electrical test requirements shall be the subgroups specified in table II. The electrical tests for each subgroup are defined in table I.

3.5 Marking of device(s). Marking of device(s) shall be in accordance with MIL-PRF-38534. The device shall be marked with the PIN listed in 1.2 herein. In addition, the manufacturer's vendor similar PIN may also be marked.

3.6 Data. In addition to the general performance requirements of MIL-PRF-38534, the manufacturer of the device described herein shall maintain the electrical test data (variables format) from the initial quality conformance inspection group A lot sample, for each device type listed herein. Also, the data should include a summary of all parameters manually tested, and for those which, if any, are guaranteed. This data shall be maintained under document revision level control by the manufacturer and be made available to the preparing activity (DSCC-VA) upon request.

3.7 Certificate of compliance. A certificate of compliance shall be required from a manufacturer in order to supply to this drawing. The certificate of compliance (original copy) submitted to DSCC-VA shall affirm that the manufacturer's product meets the performance requirements of MIL-PRF-38534 and herein.

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit
					Min	Max	
+15 V output							
Output voltage	V _{OUT}	V _{IN} = 18.5 V to 30 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	1,8,9	14.8	15.2	V
			2,3		14.6	15.4	
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = 17.5 V to 30 V	1			75	mV
			2,3			150	
		V _{IN} = 20 V to 25 V	1			40	
			2,3			80	
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1			100	
			2,3			200	
		I _O = 250 mA to 750 mA	1			50	
			2,3			100	
Standby current drain	I _{SCD}		1			6.0	mA
			2,3			7.0	
Standby current drain <u>3/</u> change with line	ΔI _{SCD} (line)	V _{IN} = 18.5 V to 30 V	1,2,3			0.8	
Standby current drain change with load	ΔI _{SCD} (load)	I _O = 5.0 mA to 1000 mA	1,2,3			0.5	
Dropout voltage	V _{DO}	I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3		2.5	V	
Peak output current	I _{O(pk)}	T _C = +25°C	1	1.5	3.3	A	
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = 35 V	1		1.2		
			2,3		2.8		

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit	
					Min	Max		
+15 V output - Continued.								
Ripple rejection	$\Delta V_{IN}/\Delta V_{OUT}$	T _C = +25°C, f = 120 Hz, ΔV_{IN} = 10 V, V _{IN} = 23 V	4	1,8,9	54		dB	
			5,6 <u>5/</u>		51			
Output noise voltage <u>5/</u>	N _O	T _C = +25°C	7			40		μA/V rms
Long term stability <u>5/</u>	$\Delta V_{OUT}/\Delta t$	T _C = +25°C, t = 1000 hours	7			150	mV	
-15 V output								
Output voltage	V _{OUT}	V _{IN} = -17.5 V to -30 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	1,4,7	-14.85	-15.45	V	
			2,3		-14.55	-15.45		
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = -17.5 V to -30 V	1				20	mV
			2,3				50	
		V _{IN} = -20 V to -26 V	1				15	
			2,3				25	
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1				35	
			2,3				75	
		I _O = 250 mA to 750 mA	1				21	
			2,3				45	
Standby current drain	I _{SCD}	V _{IN} = -17.5 V to -30 V	1				6.0	mA
			2,3				6.5	
Standby current drain <u>3/</u> change with line	ΔI_{SCD} (line)		1,2,3				0.8	
Standby current drain change with load	ΔI_{SCD} (load)		I _O = 5.0 mA to 1000 mA		1,2,3			0.5
See footnotes at end of table.								
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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit
					Min	Max	
-15 V output - Continued.							
Dropout voltage	V _{DO}	I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3	1,4,7		2.5	V
Peak output current	I _{O(pk)}	T _C = +25°C	1		1.5	3.3	A
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = -35 V	1			1.2	
			2,3			2.8	
Ripple rejection	ΔV _{IN} /ΔV _{OUT}	T _C = +25°C, f = 120 Hz, ΔV _{IN} = -10 V, V _{IN} = -23 V	4		53		dB
			5,6 <u>5/</u>		50		
Output noise voltage <u>5/</u>	N _O	T _C = +25°C, f = 10 Hz to 100 kHz	7			40	μA/V rms
Long term stability <u>5/</u>	ΔV _{OUT} /Δt	T _C = +25°C, t = 1000 hours	7		150	mV	
+12 V output							
Output voltage	V _{OUT}	V _{IN} = 14.5 V to 27 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	5,6,7	11.88	12.12	V
			2,3		11.64	12.36	
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = 14.5 V to 27 V	1			18	mV
			2,3			50	
		V _{IN} = 16 V to 22 V	1			9	
			2,3			30	
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1			32	
			2,3			60	
		I _O = 250 mA to 750 mA	1			20	
			2,3			40	
See footnotes at end of table.							
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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit
					Min	Max	
+12 V output - Continued.							
Standby current drain	I _{SCD}		1	5,6,7		6.0	mA
			2,3			6.5	
Standby current drain <u>3/</u> change with line	ΔI _{SCD} (line)	V _{IN} = 14.5 V to 27 V	1,2,3			0.8	
Standby current drain change with load	ΔI _{SCD} (load)	I _O = 5.0 mA to 1000 mA	1,2,3			0.5	
Dropout voltage	V _{DO}	I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3			2.5	V
Peak output current	I _{O(pk)}	T _C = +25°C	1		1.5	3.3	A
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = 35 V	1			1.2	
			2,3			2.8	
Ripple rejection	ΔV _{IN} /ΔV _{OUT}	T _C = +25°C, f = 120 Hz, ΔV _{IN} = 10 V, V _{IN} = 20 V	4		59		dB
			5,6 <u>5/</u>		54		
Output noise voltage <u>5/</u>	N _O	T _C = +25°C	7		40	μA/V rms	
Long term stability <u>5/</u>	ΔV _{OUT} /Δt	T _C = +25°C, t = 1000 hours	7		120	mV	
-12 V output							
Output voltage	V _{OUT}	V _{IN} = -14.5 V to -27 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	3,6,9	-11.8	-12.2	V
			2,3		-11.6	-12.4	
See footnotes at end of table.							
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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit	
					Min	Max		
-12 V output - Continued.								
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = -14.5 V to -27 V	1	3,6,9		20	mV	
			2,3			50		
		V _{IN} = -16 V to -22 V	1			10		
			2,3			30		
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1			32		mA
			2,3			60		
		I _O = 250 mA to 750 mA	1			16		
			2,3			30		
Standby current drain	I _{SCD}		1		3.5			
			2,3		4.0			
Standby current drain <u>3/</u> change with line	ΔI _{SCD} (line)		V _{IN} = -14.5 V to -27 V	1,2,3		0.8		
Standby current drain change with load	ΔI _{SCD} (load)		I _O = 5.0 mA to 1000 mA	1,2,3		0.5		
Dropout voltage	V _{DO}		I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3		2.5	V	
Peak output current	I _{O(pk)}		T _C = +25°C	1		1.5	3.3	A

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit	
					Min	Max		
-12 V output - Continued.								
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = -35 V	1	3,6,9		1.2	A	
			2,3			2.8		
Ripple rejection	ΔV _{IN} /ΔV _{OUT}	T _C = +25°C, f = 120 Hz, ΔV _{IN} = -10 V, V _{IN} = -20 V	4			56	dB	
			5,6 <u>5/</u>			53		
Output noise voltage <u>5/</u>	N _O	T _C = +25°C	7				40	μA/V rms
Long term stability <u>5/</u>	ΔV _{OUT} /Δt	T _C = +25°C, t = 1000 hours	7			120	mV	
+5 V output								
Output voltage	V _{OUT}	V _{IN} = 7.5 V to 20 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	2,3,4	4.92	5.08	V	
			2,3		4.85	5.15		
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = 7.5 V to 20 V	1				5	mV
			2,3				12	
		V _{IN} = 8 V to 12 V	1				4	
			2,3			10		
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1			12		
			2,3			25		
		I _O = 250 mA to 750 mA	1			15		
			2,3			30		

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/ 2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit
					Min	Max	
+5 V output - Continued.							
Standby current drain	I _{SCD}		1	2,3,4		6.0	mA
			2,3			6.5	
Standby current drain <u>3/</u> change with line	ΔI _{SCD} (line)	V _{IN} = 7.5 V to 20 V	1,2,3			0.8	
Standby current drain change with load	ΔI _{SCD} (load)	I _O = 5.0 mA to 1000 mA	1,2,3			0.5	
Dropout voltage	V _{DO}	I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3			2.5	V
Peak output current	I _{O(pk)}	T _C = +25°C	1		1.5	3.3	A
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = 35 V	1			1.2	
			2,3			2.8	
Ripple rejection	ΔV _{IN} /ΔV _{OUT}	T _C = +25°C, f = 120 Hz, ΔV _{IN} = 10 V, V _{IN} = 13 V	4		66		dB
			5,6 <u>5/</u>		60		
Output noise voltage <u>5/</u>	N _O	T _C = +25°C	7			40	μA/V rms
Long term stability <u>5/</u>	ΔV _{OUT} /Δt	T _C = +25°C, t = 1000 hours	7			75	mV
-5 V output							
Output voltage	V _{OUT}	V _{IN} = -7.5 V to -20 V, I _O = 5.0 mA to 1.0 A, P ≤ 15 W	1	2,5,8	-4.95	-5.05	V
			2,3		-4.85	-5.15	
See footnotes at end of table.							
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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/</u> <u>2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit	
					Min	Max		
-5 V output - Continued.								
Line regulation <u>3/</u>	V _{RLINE}	V _{IN} = -7.5 V to -20 V	1	2,5,8		12	mV	
			2,3			25		
		V _{IN} = -8 V to -12 V	1			5		
			2,3			12		
Load regulation	V _{RLOAD}	I _O = 5.0 mA to 1.5 A	1			20		
			2,3			25		
		I _O = 250 mA to 750 mA	1			15		
			2,3			30		
Standby current drain	I _{SCD}		1		2.5	mA		
			2,3		3.5			
Standby current drain <u>3/</u> change with line	ΔI _{SCD} (line)		V _{IN} = -7.5 V to -20 V	1,2,3		0.4		
				1,2,3		0.4		
Standby current drain change with load	ΔI _{SCD} (load)		I _O = 5.0 mA to 1000 mA	1,2,3		0.4		
				1,2,3		0.4		
Dropout voltage	V _{DO}		I _O = 1.0 A, ΔV _{OUT} = 100 mV	1,2,3		2.5		V
Peak output current	I _{O(pk)}		T _C = +25°C	1		1.5		3.3
Short circuit current <u>4/</u>	I _{OS}	V _{IN} = -35 V	1			1.2		
			2,3			2.8		

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions <u>1/</u> <u>2/</u> -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device types	Limits		Unit
					Min	Max	
-5 V output - Continued.							
Ripple rejection	$\Delta V_{IN}/\Delta V_{OUT}$	T _C = +25°C, f = 120 Hz, $\Delta V_{IN} = -10$ V, V _{IN} = -13 V	4	2,5,8	66		dB
			5,6 <u>5/</u>		60		
Output noise voltage <u>5/</u>	N _O	T _C = +25°C	7			40	μA/V rms
Long term stability <u>5/</u>	$\Delta V_{OUT}/\Delta t$	T _C = +25°C, t = 1000 hours	7			75	mV

1/ Unless otherwise specified, I_O = 500 mA and voltage in as follows:

- +15 V output, V_{IN} = +23 V
- 15 V output, V_{IN} = -23 V
- +12 V output, V_{IN} = +19 V
- 12 V output, V_{IN} = -19 V
- +5 V output, V_{IN} = +10 V
- 5 V output, V_{IN} = -10 V

2/ All measurements except output noise voltage and ripple rejection are made at constant junction temperature and with low duty cycle.

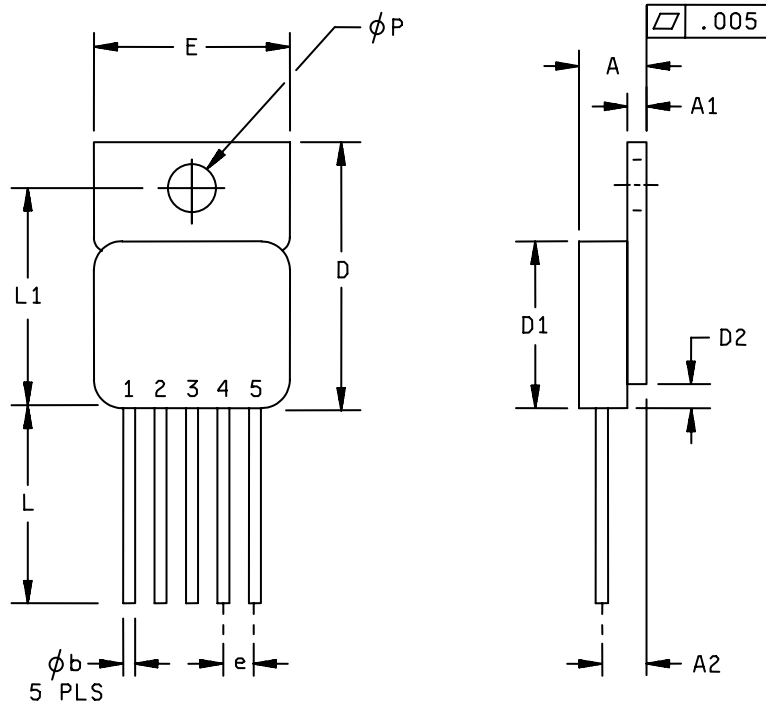
3/ Minimum load current for full line regulation is 5.0 mA.

4/ Short circuit protection is only assured up to V_{IN} = +35 V for positive output and -35 V for negative output.

5/ Parameter shall be tested as part of device initial characterization and after design and process changes. Parameter shall be guaranteed to limits specified in table I for all lots not specifically tested.

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Case outline X.



Letter	Inches		Millimeters	
	Min	Max	Min	Max
A	.240	.270	6.10	6.86
A1	.035	.045	0.89	1.14
A2	.140 BSC		3.56 BSC	
ϕb	.025	.035	0.64	0.89
D	.815	.835	20.70	21.21
D1	.530	.550	13.46	13.97
D2		.092		2.34
e	.100 BSC		2.54 BSC	
E	.685	.695	17.40	17.65
L	.500	.750	12.70	19.05
L1	.697	.707	17.70	17.96
ϕP	.155	.165	3.94	4.19

NOTE:

The U.S. government preferred system of measurement is the metric SI system. However, since this item was originally designed using inch-pound units of measurement, in the event of conflict between the metric and inch-pound units, the inch-pound units shall take precedence.

FIGURE 1. Case outline.

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Device types	01-09
Case outline	X
Terminal number	Terminal symbol
1	+Input
2	+Output
3	Common
4	-Input
5	-Output

FIGURE 2. Terminal connections.

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TABLE II. Electrical test requirements.

MIL-PRF-38534 test requirements	Subgroups (in accordance with MIL-PRF-38534, group A test table)
Interim electrical parameters	1
Final electrical parameters	1*, 2, 3, 4
Group A test requirements	1, 2, 3, 4, 5**
Group C end-point electrical parameters	1, 2, 3, 4, 5**, 6**, 7**
End-point electrical parameters for Radiation Hardness Assurance (RHA) devices	Not applicable

* PDA applies to subgroup 1.

** Subgroups 5, 6, and 7 shall be tested as part of device initial characterization and after design and process changes. Parameter(s) shall be guaranteed to the limits specified in table I for all lots not specifically tested.

3.8 Certificate of conformance. A certificate of conformance as required in MIL-PRF-38534 shall be provided with each lot of microcircuits delivered to this drawing.

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection procedures shall be in accordance with MIL-PRF-38534 or as modified in the device manufacturer's Quality Management (QM) plan. The modification in the QM plan shall not affect the form, fit, or function as described herein.

4.2 Screening. Screening shall be in accordance with MIL-PRF-38534. The following additional criteria shall apply:

a. Burn-in test, method 1015 of MIL-STD-883.

(1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DSCC-VA or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1015 of MIL-STD-883.

(2) T_A as specified in accordance with table I of method 1015 of MIL-STD-883.

b. Interim and final electrical test parameters shall be as specified in table II herein, except interim electrical parameter tests prior to burn-in are optional at the discretion of the manufacturer.

4.3 Conformance and periodic inspections. Conformance inspection (CI) and periodic inspection (PI) shall be in accordance with MIL-PRF-38534 and as specified herein.

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4.3.1 Group A inspection (CI). Group A inspection shall be in accordance with MIL-PRF-38534 and as follows:

- a. Tests shall be as specified in table II herein.
- b. Subgroups 8A, 8B, 9, 10, and 11 shall be omitted.

4.3.2 Group B inspection (PI). Group B inspection shall be in accordance with MIL-PRF-38534.

4.3.3 Group C inspection (PI). Group C inspection shall be in accordance with MIL-PRF-38534 and as follows:

- a. End-point electrical parameters shall be as specified in table II herein.
- b. Steady-state life test, method 1005 of MIL-STD-883.
 - (1) Test condition A, B, C, or D. The test circuit shall be maintained by the manufacturer under document revision level control and shall be made available to either DSCC-VA or the acquiring activity upon request. Also, the test circuit shall specify the inputs, outputs, biases, and power dissipation, as applicable, in accordance with the intent specified in method 1005 of MIL-STD-883.
 - (2) T_A as specified in accordance with table I of method 1005 of MIL-STD-883.
 - (3) Test duration: 1,000 hours, except as permitted by method 1005 of MIL-STD-883.

4.3.4 Group D inspection (PI). Group D inspection shall be in accordance with MIL-PRF-38534.

4.3.5 Radiation Hardness Assurance (RHA) inspection. RHA inspection is not currently applicable to this drawing.

5. PACKAGING

5.1 Packaging requirements. The requirements for packaging shall be in accordance with MIL-PRF-38534.

6. NOTES

6.1 Intended use. Microcircuits conforming to this drawing are intended for use for Government microcircuit applications (original equipment), design applications, and logistics purposes.

6.2 Replaceability. Microcircuits covered by this drawing will replace the same generic device covered by a contractor-prepared specification or drawing.

6.3 Configuration control of SMD's. All proposed changes to existing SMD's will be coordinated as specified in MIL-PRF-38534.

6.4 Record of users. Military and industrial users shall inform Defense Supply Center Columbus (DSCC) when a system application requires configuration control and the applicable SMD. DSCC will maintain a record of users and this list will be used for coordination and distribution of changes to the drawings. Users of drawings covering microelectronic devices (FSC 5962) should contact DSCC-VA, telephone (614) 692-0544.

6.5 Comments. Comments on this drawing should be directed to DSCC-VA, Columbus, Ohio 43218-3990, or telephone (614) 692-1081.

6.6 Sources of supply. Sources of supply are listed in MIL-HDBK-103 and QML-38534. The vendors listed in MIL-HDBK-103 and QML-38534 have submitted a certificate of compliance (see 3.7 herein) to DSCC-VA and have agreed to this drawing.

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STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 06-04-19

Approved sources of supply for SMD 5962-89490 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38534 during the next revisions. MIL-HDBK-103 and QML-38534 will be revised to include the addition or deletion of sources. The vendors listed below have agreed to this drawing and a certificate of compliance has been submitted to and accepted by DSCC-VA. This information bulletin is superseded by the next dated revisions of MIL-HDBK-103 and QML-38534. DSCC maintains an online database of all current sources of supply at <http://www.dscclia.mil/Programs/Smcr/>.

Standard microcircuit drawing PIN <u>1/</u>	Vendor CAGE number	Vendor similar PIN <u>2/</u>
5962-8949001XA 5962-8949001XA 5962-8949001XA 5962-8949001XC	21845 <u>3/</u> <u>3/</u> 21845	SD11089XHD OM7509SC/883B OM3909SCB SD11089XHG
5962-8949002XA 5962-8949002XA 5962-8949002XA 5962-8949002XC	21845 <u>3/</u> <u>3/</u> 21845	SD11081XHD OM7501SC/883B OM3901SCB SD11081XHG
5962-8949003XA 5962-8949003XA 5962-8949003XA 5962-8949003XC	21845 <u>3/</u> 69210 21845	SD11082XHD OM7502SC/883B OM3902SCB SD11082XHG
5962-8949004XA 5962-8949004XA 5962-8949004XA 5962-8949004XC	21845 <u>3/</u> <u>3/</u> 21845	SD11083XHD OM7503SC/883B OM3903SCB SD11083XHG
5962-8949005XA 5962-8949005XA 5962-8949005XA 5962-8949005XC	21845 <u>3/</u> <u>3/</u> 21845	SD11084XHD OM7504SC/883B OM3904SCB SD11084XHG
5962-8949006XA 5962-8949006XA 5962-8949006XA 5962-8949006XC	21845 <u>3/</u> 69210 21845	SD11085XHD OM7505SC/883B OM3905SCB SD11085XHG
5962-8949007XA 5962-8949007XA 5962-8949007XA 5962-8949007XC	21845 <u>3/</u> <u>3/</u> 21845	SD11086XHD OM7506SC/883B OM3906SCB SD11086XHG
5962-8949008XA 5962-8949008XA 5962-8949008XA 5962-8949008XC	21845 <u>3/</u> <u>3/</u> 21845	SD11087XHD OM7507SC/883B OM3907SCB SD11087XHG
5962-8949009XA 5962-8949009XA 5962-8949009XA 5962-8949009XC	21845 <u>3/</u> <u>3/</u> 21845	SD11088XHD OM7508SC/883B OM3908SCB SD11088XHG

- 1/ The lead finish shown for each PIN representing a hermetic package is the most readily available from the manufacturer listed for that part. If the desired lead finish is not listed contact the Vendor to determine its availability.
- 2/ **Caution.** Do not use this number for item acquisition. Items acquired to this number may not satisfy the performance requirements of this drawing.
- 3/ Not available from an approved source.

STANDARD MICROCIRCUIT DRAWING BULLETIN - CONTINUED.

DATE: 06-04-19

<u>Vendor CAGE number</u>	<u>Vendor name and address</u>
21845	Solitron Devices, Incorporated 3301 Electronics Way West Palm Beach, FL 33407
69210	International Rectifier Corporation DIV HI-REL 205 Crawford Street Leominster, MA 01453-2329

The information contained herein is disseminated for convenience only and the Government assumes no liability whatsoever for any inaccuracies in the information bulletin.