

REVISIONS

LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
A	Update drawing to the latest requirements of MIL-PRF-38534. -sld	14-12-09	Charles F. Saffle
B	Figure 1: Corrected dimensions "D" and "S" for case outlines X and Y. Editorial changes throughout. -sld	17-08-03	Charles F. Saffle
C	Added device type 04 and case outline Z. -sld	18-12-03	Charles F. Saffle
D	Update drawing to the latest requirements of MIL-PRF-38534. -gc	23-08-09	James R. Eschmeyer



Revision Status of Sheets

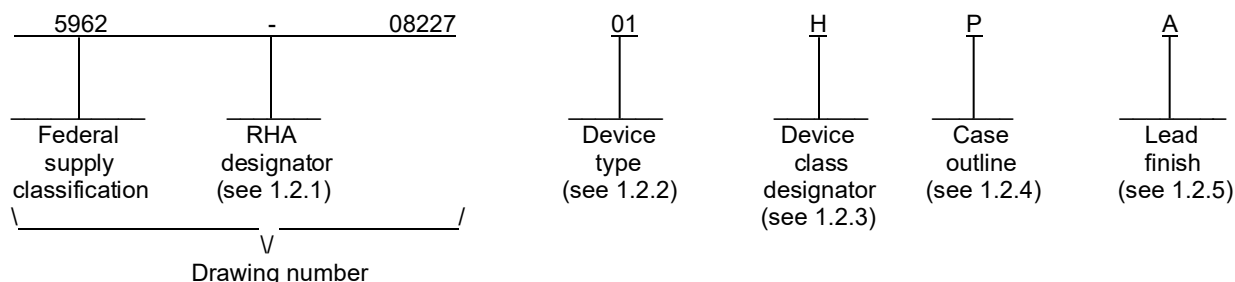
REV																				
SHEET																				
REV	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D				
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				

PMIC N/A				
STANDARD MICROCIRCUIT DRAWING THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE	PREPARED BY Steve L. Duncan	DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990 https://www.dla.mil/LandandMaritime		
	CHECKED BY Greg Cecil			
	APPROVED BY Joseph D. Rodenbeck	MICROCIRCUIT, HYBRID, HIGH GAIN 3.3V OPTOCOUPLER		
	DRAWING APPROVAL DATE 09-04-28			
AMSC N/A	REVISION LEVEL D	SIZE A	CAGE CODE 67268	5962-08227
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1. SCOPE

1.1 Scope. This drawing documents five product assurance classes as defined in paragraph 1.2.3 and MIL-PRF-38534. A choice of case outlines and lead finishes are available and are reflected in the Part or Identifying Number (PIN). When available, a choice of radiation hardness assurance levels is reflected in the PIN.

1.2 PIN. The PIN is as shown in the following example:



1.2.1 Radiation hardness assurance (RHA) designator. RHA marked devices meet the MIL-PRF-38534 specified RHA levels and are marked with the appropriate RHA designator. A dash (-) indicates a non-RHA device.

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

Device type	Generic number	Circuit function
01	ACPL-5701L, ACPL-570KL	Low input current, high gain single channel optocoupler
02	ACPL-5731L, ACPL-573KL	Low input current, high gain dual channel optocoupler
03	ACPL-1772L, ACPL-177KL	Low input current, high gain four channel optocoupler
04	ACPL-6751L, ACPL-675KL	Low input current, high gain, quad channel, optocoupler

1.2.3 Device class designator. This device class designator is a single letter identifying the product assurance level. All levels are defined by the requirements of MIL-PRF-38534 and require QML Certification as well as qualification (Class H, K, and E) or QML Listing (Class G and D). The product assurance levels are as follows:

Device class	Device performance documentation
K	Highest reliability class available. This level is intended for use in space applications.
H	Standard military quality class level. This level is intended for use in applications where non-space high reliability devices are required.
G	Reduced testing version of the standard military quality class. This level uses the Class H screening and In-Process Inspections with a possible limited temperature range, manufacturer specified incoming flow, and the manufacturer guarantees (but may not test) periodic and conformance inspections (Group A, B, C and D).
E	Designates devices which are based upon one of the other classes (K, H, or G) with exception(s) taken to the requirements of that class. These exception(s) must be specified in the device acquisition document; therefore the acquisition document should be reviewed to ensure that the exception(s) taken will not adversely affect system performance.
D	Manufacturer specified quality class. Quality level is defined by the manufacturers internal, QML certified flow. This product may have a limited temperature range.

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1.2.4 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>
E	CDIP2-T16	16	Dual-in-line
P	CDIP2-T8	8	Dual-in-line
T	See figure 1	16	Dual-in-line
U	See figure 1	16	Dual-in-line
X	See figure 1	8	Dual-in-line
Y	See figure 1	8	Dual-in-line
Z	See figure 1	16	Flat package

1.2.5 Lead finish. The lead finish is as specified in MIL-PRF-38534.

1.3 Absolute maximum ratings . 1/

Supply voltage (V_{CC})	-0.5 V dc to +20 V dc 2/
Peak forward input current ($I_{F(PEAK)}$) (each channel, $t \leq 1$ ms)	20 mA
Average input forward current (I_{FAVG}) (each channel).....	10 mA 3/
Reverse input voltage (V_R) (each channel).....	5.0 V
Output current (I_O) (each channel).....	40 mA
Output voltage (V_O) (each channel).....	-0.5 V dc to +20 V dc 2/
Output power dissipation (P_O) (each channel)	50 mW 4/
Lead temperature (soldering, 10 seconds).....	+260°C (1.6 mm below seating plane)
Storage temperature range	-65°C to +150°C
Junction temperature (T_J).....	+175°C
Case temperature (T_C).....	+170°C

1.4 Recommended operating conditions.

Supply voltage range (V_{CC}).....	3.0 V to 7.0 V
Low level input current (I_{FL}) (each channel).....	2.0 μ A max
High level input current range (I_{FH}) (each channel).....	0.5 mA to 5 mA
Output Voltage (V_O).....	3.0 V to 7.0 V
Operating temperature range (T_A).....	-55°C to +125°C

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.

- 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/ Ground pin should be the most negative voltage at the detector side. Keeping V_{CC} as low as possible, but greater than 2.0 volts, will provide the lowest I_{OH} over temperature.
- 3/ Derate I_F at 0.33 mA/°C above +110°C.
- 4/ Output power is collector output power plus total supply power for device type 01. For device type 02, output power is the collector output power plus one half the total supply power. For device type 03, output power is collector output power plus one fourth of total supply power. Derate at 1.66 mW/°C above 110°C.

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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 <https://quicksearch.dla.mil/>.)

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 for device classes D, E, G, H, and K shall be in accordance with MIL-PRF-38534. Compliance with MIL-PRF-38534 shall include the performance of all tests herein or as designated in the device manufacturer's Quality Management (QM) plan or as designated for the applicable device class. The manufacturer may eliminate, modify or optimize the tests and inspections herein, however the performance requirements as defined in MIL-PRF-38534 shall be met for the applicable device class. In addition, the modification in the QM plan shall not affect the form, fit, or function of the device for the applicable device class.

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 1.2.4 herein and figure 1.

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

3.2.3 Switching test circuit and waveform(s). The test circuit and waveform(s) shall be as specified on figure 3.

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 (DLA Land and Maritime -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 DLA Land and Maritime -VA shall affirm that the manufacturer's product meets the performance requirements of MIL-PRF-38534 and herein.

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.

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TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Logic high output current	I _{OH}	I _F = 2 μA, V _{CC} = 7 V, V _O = 7 V <u>1/ 2/</u>	1,2,3	All		100	μA
	I _{OHX}					100	
Logic low output voltage	V _{OL}	I _F = 0.5 mA, I _{OL} = 1.5 mA, V _{CC} = 3.0 V <u>1/</u>	1,2,3	All		0.4	V
		I _F = 1.6 mA, I _{OL} = 4.8 mA, V _{CC} = 3.0 V <u>1/</u>				0.4	
		I _F = 5.0 mA, I _{OL} = 10 mA, V _{CC} = 3.0 V <u>1/</u>				0.4	
Current transfer ratio	CTR	I _F = 0.5 mA, V _O = 0.4 V, V _{CC} = 3.0 V <u>1/ 3/</u>	1,2,3	All	300		%
		I _F = 1.6 mA, V _O = 0.4 V, V _{CC} = 3.0 V <u>1/ 3/</u>			300		
		I _F = 5.0 mA, V _O = 0.4 V, V _{CC} = 3.0 V <u>1/ 3/</u>			200		
Logic high supply current	I _{CCH}	V _{CC} = 7 V, I _F = 0 mA	1,2,3	01		20	μA
		V _{CC} = 7 V, I _{F1} = I _{F2} = 0 mA		02		40	
		V _{CC} = 7 V, I _{F1} = I _{F2} = I _{F3} = I _{F4} = 0 mA		03,04		40	
Logic low supply current	I _{CCL}	V _{CC} = 7 V, I _F = 1.6 mA	1,2,3	01		2	mA
		V _{CC} = 7 V, I _{F1} = I _{F2} = 1.6 mA		02		4	
		V _{CC} = 7 V, I _{F1} = I _{F2} = I _{F3} = I _{F4} = 1.6 mA		03,04		4	
Input forward voltage	V _F	I _F = 1.6 mA <u>1/</u>	1,2,3	All	1.0	1.8	V
Input reverse breakdown voltage	BV _R	I _R = 10 μA <u>1/</u>	1,2,3	All	5		V
Input-output leakage current	I _{I-O}	V _{I-O} = 1500 V, relative humidity ≤ 65%, T _A = 25°C, t = 5 seconds <u>4/ 6/</u>	1	All		1.0	μA
Capacitance between input/output	C _{I-O}	f = 1 MHz, T _A = 25°C <u>1/ 5/ 7/</u>	4	All		4.0	pF
Propagation delay time to high output level	t _{PLH}	I _F = 0.5 mA, R _L = 2.2k Ω, V _{CC} = 3.3 V <u>1/</u>	9,10,11	All		60	μs
		I _F = 1.6 mA, R _L = 680 Ω, V _{CC} = 3.3 V <u>1/</u>	9,10,11	All		50	
		I _F = 5 mA, R _L = 330 Ω, V _{CC} = 3.3 V <u>1/</u>	9	All		20	
			10,11			30	

See footnotes at end of table.

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TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions -55°C ≤ T _C ≤ +125°C unless otherwise specified	Group A subgroups	Device type	Limits		Unit
					Min	Max	
Propagation delay time to low output level	t _{PHL}	I _F = 0.5 mA, R _L = 2.2k Ω, V _{CC} = 3.3 V <u>1/</u>	9,10,11	All		100	μs
		I _F = 1.6 mA, R _L = 680 Ω, V _{CC} = 3.3 V <u>1/</u>	9,10,11	All		30	
		I _F = 5 mA, R _L = 330 Ω, V _{CC} = 3.3 V <u>1/</u>	9	All		5	
			10,11			10	
Common mode transient immunity at high output level	CM _H	V _{CM} = 50 V (peak), V _{CC} = 3.3 V, I _F = 0 mA, R _L = 680 Ω <u>1/ 7/ 8/ 9/</u>	9,10,11	All	500		V/μs
Common mode transient immunity at low output level	CM _L	V _{CM} = 50 V (peak), V _{CC} = 3.3 V, I _F = 1.6 mA, R _L = 680 Ω <u>1/ 7/ 8/ 9/</u>	9,10,11	All	500		V/μs

1/ Each channel.

2/ I_{OHX} is the leakage current resulting from channel to channel optical crosstalk. I_F = 2 μA for channel under test. For all other channels, I_F = 10 mA.

3/ Current Transfer Ratio is defined as the ratio of output collector current, I_O, to the forward LED input current, I_F, times 100%.

4/ All devices are considered two terminal devices; I_{I-O} is measured between all input leads shorted together and all output leads shorted together.

5/ Measured between each input pair shorted together and all output connections for that channel shorted together.

6/ This is a momentary withstand test, not an operating condition.

7/ Parameters are tested as part of device initial characterization and after design and process changes. Parameters are guaranteed to limits specified for all lots not specifically tested.

8/ CM_L is the maximum rate of the rise of the common mode voltage that can be sustained with the output voltage in the logic low state (V_O < 0.8 V). CM_H is the maximum rate of the fall of the common mode voltage that can be sustained with the output voltage in the logic high state (V_O > 2.0 V).

9/ In applications where dV/dt may exceed 50,000 V/μs (such as a static discharge a series resistor, R_{CC}, should be included to protect the detector IC from destructively high surge currents). The recommended value is:

Device type 01, Single channel: $R_{CC} = \frac{1(V)}{0.15 I_F (mA)} k\Omega$

Device type 02, Dual channel: $R_{CC} = \frac{1(V)}{0.3 I_F (mA)} k\Omega$

Device type 03 and 04, Four channel: $R_{CC} = \frac{1(V)}{0.6 I_F (mA)} k\Omega$

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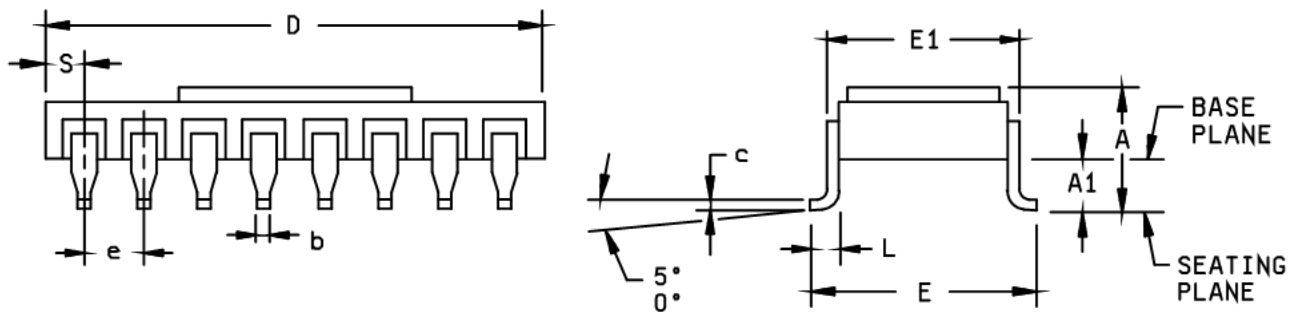
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Case outline T.



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.57		.180
A1	1.40	1.65	.055	.065
b	0.41	0.51	.016	.020
c	0.18	0.33	.007	.013
D	20.07	20.83	.790	.820
e	2.29	2.79	.090	.110
E	9.65	9.91	.380	.390
E1		8.13		.320
L	1.07	1.32	.042	.052
R	0.89	1.52	.035	.060

NOTES:

1. The U. S. Government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound shall rule.
2. Pin 1 is indicated by the ESD triangle(s) marked on top of the package.

FIGURE 1. Case outline(s).

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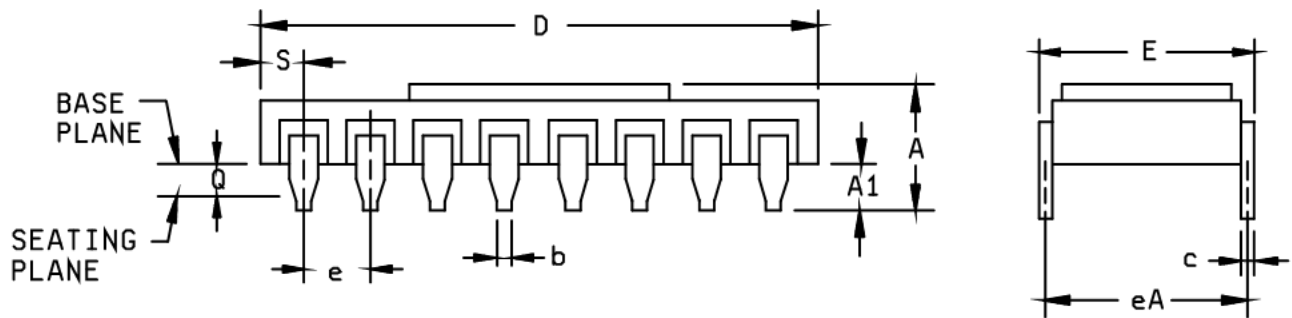
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Case outline U.



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.32		.170
A1	1.14	1.40	.045	.055
b	0.41	0.51	.016	.020
c	0.18	0.33	.007	.013
D	20.07	20.83	.790	.820
e	2.29	2.79	.090	.110
eA	7.37	7.87	.290	.310
E		8.13		.320
Q	0.51		.020	
S	0.89	1.52	.035	.060

NOTES:

1. The U. S. Government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound shall rule.
2. Pin 1 is indicated by the ESD triangle(s) marked on top of the package.

FIGURE 1. Case outline(s) - Continued.

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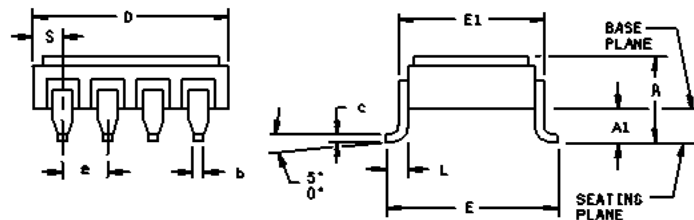
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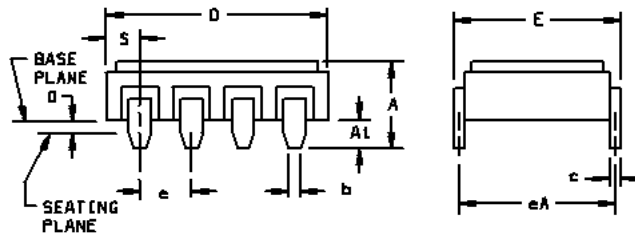
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Case outline X.



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.57		.180
A1	1.40	1.65	.055	.065
b	0.41	0.51	.016	.020
c	0.18	0.33	.007	.013
D	10.03	10.29	.395	.405
e	2.29	2.79	.090	.110
E	9.65	9.91	.380	.390
E1		8.13		.320
L	1.07	1.32	.042	.052
S	1.02	1.52	.040	.060

Case outline Y.



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		4.32		.170
A1	1.14	1.40	.045	.055
b	0.41	0.51	.016	.020
c	0.18	0.33	.007	.013
D	10.03	10.29	.395	.405
e	2.29	2.79	.090	.110
E		8.13		.320
eA	7.37	7.87	.290	.310
Q	0.51		.020	
S	1.02	1.52	.040	.060

NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin 1 is indicated by the ESD triangle(s) marked on top of the package.

FIGURE 1. Case outline(s) - Continued.

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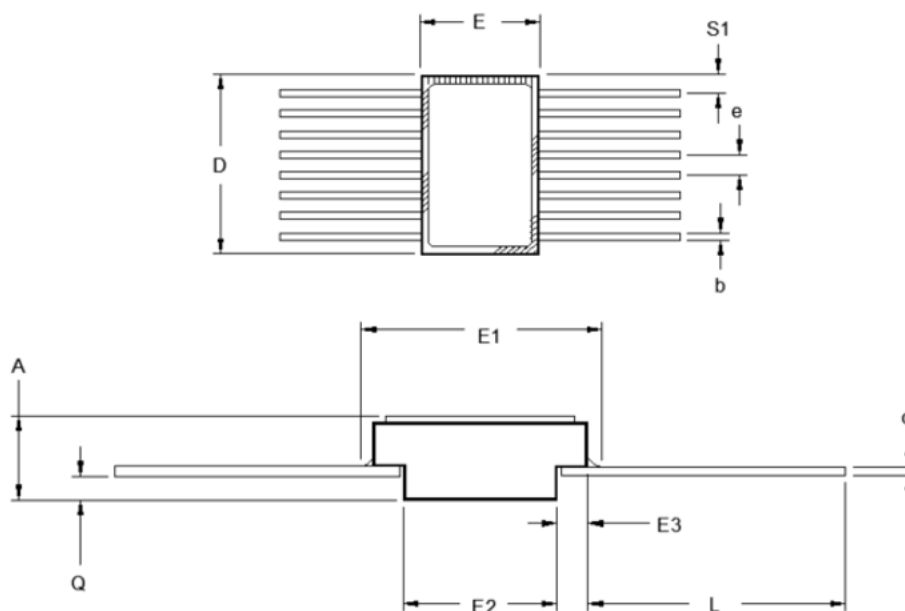
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Case outline Z.



Symbol	Millimeters		Inches		Notes
	Min	Max	Min	Max	
A	1.14	2.92	.045	.115	3
b	0.36	0.56	.014	.022	
c	0.10	0.30	.004	.012	
D		11.18		.440	4
E	6.22	7.24	.245	.285	
E1		8.13		.320	4
E2	3.30		.130		
E3	0.76		.030		5
e	1.27 BSC		.050 BSC		
L	6.35	9.40	.250	.370	
Q	0.66	1.14	.026	.045	6
S1	0.13		.005		7

NOTES:

1. The U.S. government preferred system of measurement is the metric SI. This item was designed using inch-pound units of measurement. In case of problems involving conflicts between the metric and inch-pound units, the inch-pound units shall rule.
2. Pin 1 is indicated by the ESD triangle marked on top of the package.
3. Dimension "A" controls the overall package thickness. When a window lid is used, dimension "A" must increase by a minimum of .010 inch (0.254 mm) and a maximum of .040 inch (1.020 mm).
4. This dimension allows for off-center lid, meniscus, and glass overrun.
5. For bottom-brazed lead packages, no organic or polymeric materials shall be molded to the bottom of the package to cover the leads.
6. Dimension Q shall be measured at the point of exit (beyond the meniscus) of the lead from the body. Dimension Q minimum shall be reduced by .0015 inch (0.038 mm) maximum when solder dip lead finish is applied.
7. Measure dimension S1 at all four corners, see MIL-STD-1835 paragraph 5.2.5. There is an alternative minimum limit to dimension S1, see MIL-STD-1835 paragraph 5.2.2.

FIGURE 1. Case outline(s) - Continued.

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Device types	01	02	03	04
Case outlines	P, X, Y	P, X, Y	E, T, U	Z
Terminal number	Terminal symbol			
1	NC	+V _{F1} (anode)	-V _{F1} (cathode)	-V _{F1} (cathode)
2	+V _F (anode)	-V _{F1} (cathode)	+V _{F1} (anode)	+V _{F1} (anode)
3	-V _F (cathode)	-V _{F2} (cathode)	+V _{F2} (anode)	+V _{F2} (anode)
4	NC	+V _{F2} (anode)	-V _{F2} (cathode)	-V _{F2} (cathode)
5	Ground	Ground	-V _{F3} (cathode)	-V _{F3} (cathode)
6	V _O	V _{O2}	+V _{F3} (anode)	+V _{F3} (anode)
7	NC	V _{O1}	+V _{F4} (anode)	+V _{F4} (anode)
8	V _{CC}	V _{CC}	-V _{F4} (cathode)	-V _{F4} (cathode)
9			NC	NC
10			Ground	Ground
11			V _{O4}	V _{O4}
12			V _{O3}	V _{O3}
13			V _{O2}	V _{O2}
14			V _{O1}	V _{O1}
15			V _{CC}	V _{CC}
16			NC	NC

FIGURE 2. Terminal connections.

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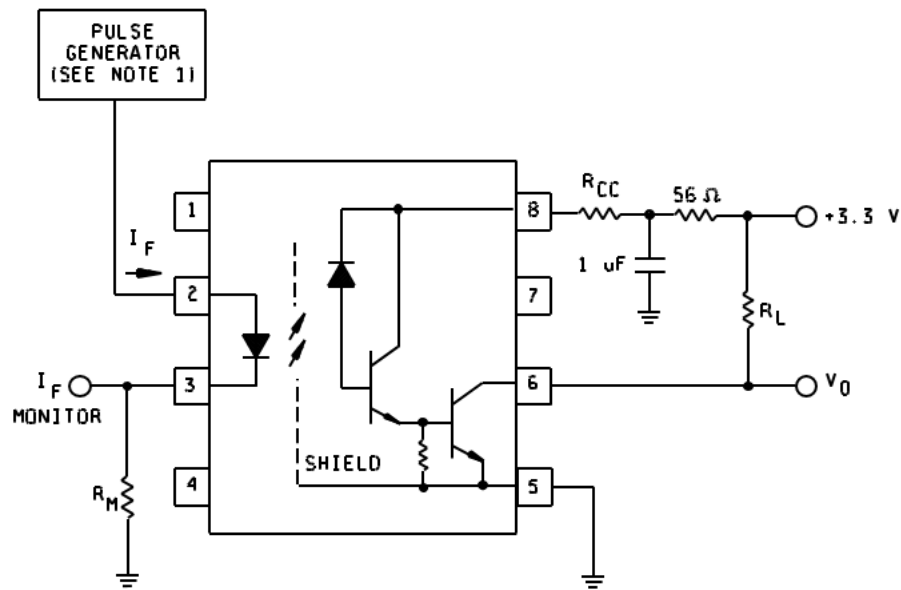
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Device type 01
Case outlines P, X, and Y.



Device type 02
Case outlines P, X, and Y.
(Each channel)

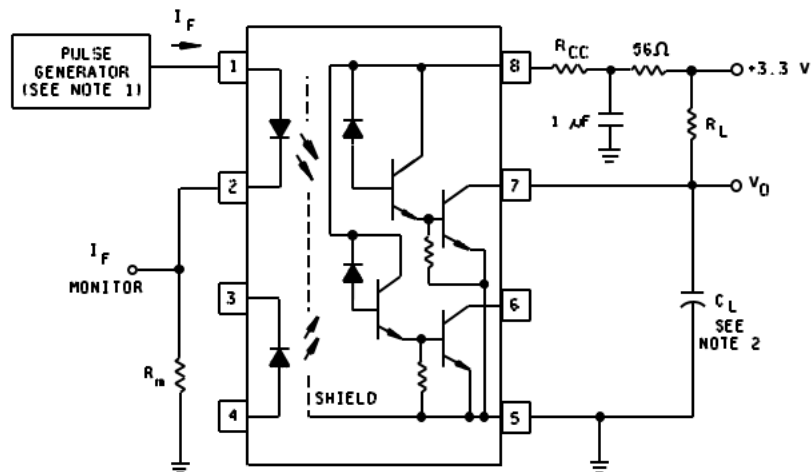


FIGURE 3. Switching test circuit(s) and waveforms.

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COLUMBUS, OHIO 43218-3990

SIZE
A

REVISION LEVEL
D

5962-08227

SHEET **12**

Device types 03 and 04

Case outlines E, T, U and Z.

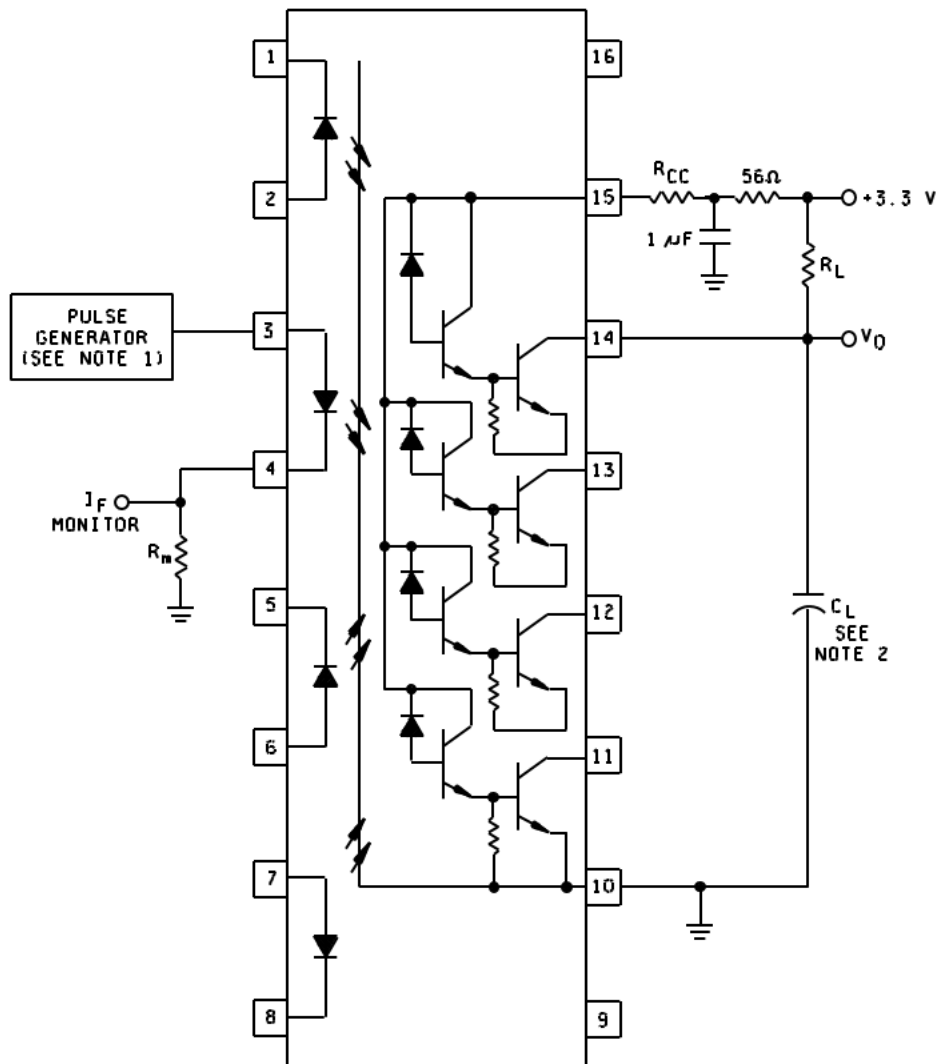


FIGURE 3. Switching test circuit(s) and waveforms - Continued.

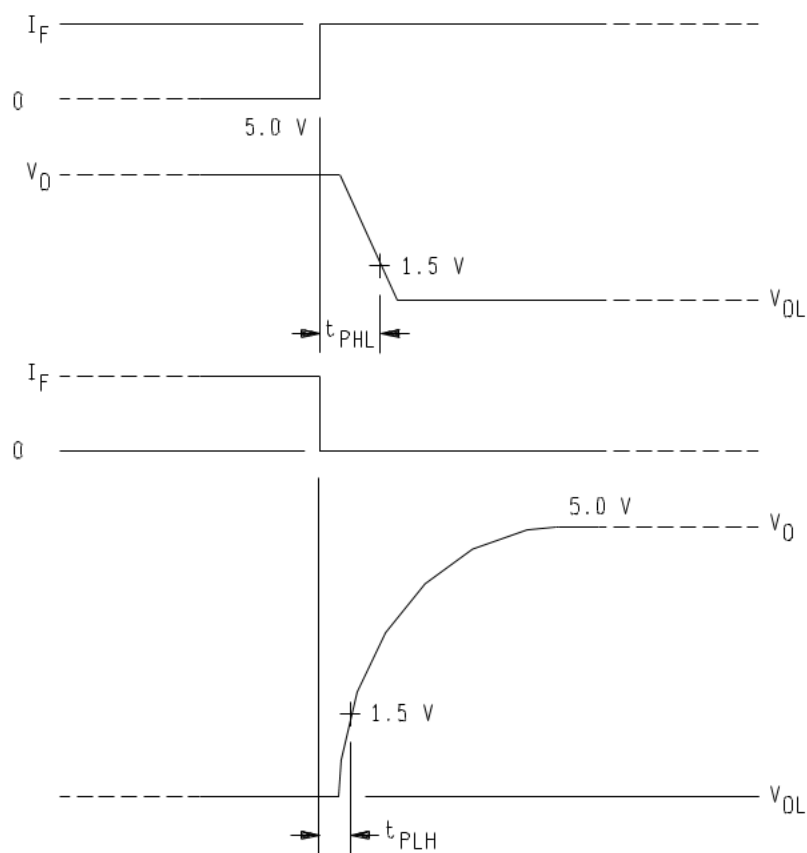
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NOTES:

1. Pulse generator having the following characteristics:
 $Z_O = 50\Omega$
 $t_r = t_f = 5.0 \text{ ns}$
 $f = 100 \text{ Hz}$
 $t_{\text{pulse}} = 0.5 \text{ ms}$
2. Load capacitance (C_L) includes probe and jig capacitance

FIGURE 3. Switching test circuit(s) and waveforms - Continued.

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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, 9, 10, 11
Group A test requirements	1, 2, 3, 4**, 9, 10**, 11**
Group C end-point electrical parameters	1, 2, 3, 9, 10, 11
End-point electrical parameters for radiation hardness assurance (RHA) devices	Not applicable

* PDA applies to subgroup 1.

** See footnote 7 of table I.

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 DLA Land and Maritime -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) TA 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.

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 5, 6, 7, and 8 shall be omitted.

c. Subgroups 4 shall consist of capacitance measurements between the designated terminals at a frequency of 1 MHz.

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

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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 DLA Land and Maritime -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) TA 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 with the users of record for the individual documents. This coordination will be accomplished using DD Form 1692, Engineering Change Proposal, or email communication.

6.4 Record of users. Military and industrial users should inform DLA Land and Maritime when a system application requires configuration control and the applicable SMD to that system. DLA Land and Maritime 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 DLA Land and Maritime-VA, telephone (614) 692-8108.

6.5 Comments. Comments on this drawing should be directed to DLA Land and Maritime-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 DLA Land and Maritime-VA and have agreed to this drawing.

STANDARD MICROCIRCUIT DRAWING DLA LAND AND MARITIME COLUMBUS, OHIO 43218-3990	SIZE A		5962-08227
		REVISION LEVEL D	SHEET 16

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 23-08-09

Approved sources of supply for SMD 5962-08227 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38534 during the next revision. 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 DLA Land and Maritime-VA. This information bulletin is superseded by the next dated revision of MIL-HDBK-103 and QML-38534. DLA Land and Maritime maintains an online database of all current sources of supply at <https://landandmaritimeapps.dla.mil/programs/smcr/>.

Standard microcircuit drawing PIN 1/	Vendor CAGE number	Vendor similar PIN 2/
5962-0822701HPA	50434	ACPL-5701L-200
5962-0822701HPC	50434	ACPL-5701L
5962-0822701HXA	50434	ACPL-5701L-300
5962-0822701HYA	50434	ACPL-5701L-100
5962-0822701HYC	50434	ACPL-5701L-100
5962-0822701KPA	50434	ACPL-570KL-200
5962-0822701KPC	50434	ACPL-570KL
5962-0822701KXA	50434	ACPL-570KL-300
5962-0822701KYA	50434	ACPL-570KL-100
5962-0822701KYC	50434	ACPL-570KL-100
5962-0822702HPA	50434	ACPL-5731L-200
5962-0822702HPC	50434	ACPL-5731L
5962-0822702HXA	50434	ACPL-5731L-300
5962-0822702HYA	50434	ACPL-5731L-100
5962-0822702HYC	50434	ACPL-5731L-100
5962-0822702KPA	50434	ACPL-573KL-200
5962-0822702KPC	50434	ACPL-573KL
5962-0822702KXA	50434	ACPL-573KL-300
5962-0822702KYA	50434	ACPL-573KL-100
5962-0822702KYC	50434	ACPL-573KL-100
5962-0822703HEA	50434	ACPL-1772L-200
5962-0822703HEC	50434	ACPL-1772L
5962-0822703HTA	50434	ACPL-1772L-300
5962-0822703HUA	50434	ACPL-1772L-100
5962-0822703HUC	50434	ACPL-1772L-100
5962-0822703KEA	50434	ACPL-177KL-200
5962-0822703KEC	50434	ACPL-177KL
5962-0822703KTA	50434	ACPL-177KL-300
5962-0822703KUA	50434	ACPL-177KL-100
5962-0822703KUC	50434	ACPL-177KL-100
5962-0822704HZC	50434	ACPL-6751L
5962-0822704KZC	50434	ACPL-675KL

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.

STANDARD MICROCIRCUIT DRAWING BULLETIN - CONTINUED

DATE: 23-08-09

Vendor CAGE
number

50434

Vendor name
and address

Avago Technologies
1320 Ridder Park Drive
San Jose, CA 95131

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