REVISIONS			
LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
D	Added RadHard and Class K devices. Added RadHard requirements. Redrew entire document. -sld	97-10-29	K.A. Cottongim
E	Table I; Changed the min and max limits for Radhard levels L,R device type 02 for the following tests $+V_{OUT}$, $-V_{OUT}$. Changed the max limits for VR_{LINE}, VR_{LOAD}, I_{IN}, and Eff. For the I_{RIP} test separate subgroups 1,2,3 to subgroup 1 for device type 01 max limit of 60 mAp-p and for subgroups 2 and 3 the max limit of 100 mA. For the I_{RIP} test separate subgroups 1,2,3 to subgroup 1 for device type 02 max limit of 80 mAp-p and for subgroup 2 and 3 the max limit of 120 mAp-p.	98-02-03	K.A. Cottongim

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

PMIC N/A

STANDARD MICROCIRCUIT DRAWING

THIS DRAWING IS AVAILABLE FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

AMSC N/A

PREPARED BY
Steve L. Duncan

CHECKED BY
Gary Zahn

APPROVED BY
Gregory Lude

DRAWING APPROVAL DATE
92-07-02

REVISION LEVEL
E

DEFENSE SUPPLY CENTER COLUMBUS
COLUMBUS, OHIO 43216-5000

MICROCIRCUIT, HYBRID, LINEAR, ±15 VOLT, DUAL CHANNEL, DC/DC CONVERTER

SIZE	CAGE CODE	
A	67268	**5962-91614**

SHEET 1 OF 14

DESC FORM 2233
APR 97

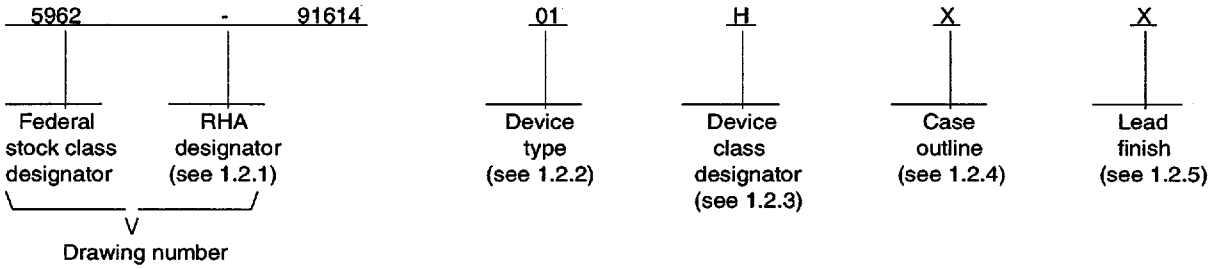
5962-E189-98

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

9004708 0034575 385

1.1 Scope. This drawing documents five product assurance classes, class D (lowest reliability), class E, (exceptions), class G (lowest high reliability), class H (high reliability), and class K, (highest reliability) and 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 are reflected in the PIN.

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



1.2.1 Radiation hardness assurance (RHA) designator. Device classes H and K RHA marked devices shall meet the MIL-PRF-38534 specified RHA levels and shall be marked with the appropriate RHA designator. A dash (-) indicates a non-RHA device. Only, the RHA levels specified herein are available.

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

Device type	Generic number	Circuit function
01	MHF+2815D/883,MHF+2815DF/883	DC-DC converter, 15 W, ±15 V output
02	SMHF+2815D,SMHF+2815DF	DC-DC converter, 15 W, ±15 V output

1.2.3 Device class designator. This device class designator shall be a single letter identifying the product assurance level as follows:

Device class	Device performance documentation
D, E, G, H, or K	Certification and qualification to MIL-PRF-38534

1.2.4 Case outline(s). The case outline(s) shall be as designated in MIL-STD-1835 and as follows:

Outline letter	Descriptive designator	Terminals	Package style
X	See figure 1	8	Dual-in-line
Z	See figure 1	8	Flange package

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

1.3 Absolute maximum ratings 1/

Input voltage range	-0.5 V dc to +50 V dc
Power dissipation (P_D)	6 W
Output power	15.34 W
Lead soldering temperature (10 seconds)	+300°C
Storage temperature range	-65°C to +150°C

1.4 Recommended operating conditions.

Input voltage range	+16 V dc to +40 V dc
Case operating temperature range	-55°C to +125°C

2. APPLICABLE DOCUMENTS

2.1 Government specification, standards, and handbook. The following specification, standards, and handbook form a part of this drawing to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solitation.

SPECIFICATION

DEPARTMENT OF DEFENSE

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

STANDARDS

DEPARTMENT OF DEFENSE

MIL-STD-883 - Test Methods and Procedures for Microelectronics.
MIL-STD-973 - Configuration Management.
MIL-STD-1835 - Microcircuit Case Outlines.

HANDBOOK

DEPARTMENT OF DEFENSE

MIL-HDBK-780 - Standard Microcircuit Drawings.

(Unless otherwise indicated, copies of the specification, standards, and handbook are available 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.

1/ Stresses above the absolute maximum rating may cause permanent damage to the device. Extended operation at the maximum levels may degrade performance and affect reliability.

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 may 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. Therefore, the tests and inspections herein may not be performed for the applicable device class (see MIL-PRF-38534). Futhermore, the manufacturers may take exceptions or use alternate methods to the tests and inspections herein and not perform them. However, the performance requirements as defined in MIL-PRF-38534 shall be met for the appilcable 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.

3.3 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 as listed in QML-38534.

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.

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. QUALITY ASSURANCE PROVISIONS

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.

TABLE I. Electrical performance characteristics.

Test	Symbol	Conditions 1/ $-55°C \le T_C \le +125°C$, V_{IN} = 28V dc ±5 percent, no external sync, C_L = 0, unless otherwise specified	Group A subgroups	Device Type	Limits Min	Limits Max	Unit
Output voltage	$+V_{OUT}$	V_{IN} = 16, 28, and 40 V dc,	1	01,02	14.85	15.15	V
			2,3	01,02	14.70	15.30	
		L,R	1,2,3	02	14.25	15.75	
	$-V_{OUT}$		1	01,02	-14.78	-15.23	
			2,3	01,02	-14.63	-15.38	
		L,R	1,2,3	02	-14.18	-15.82	
Output current 2/	I_{OUT}	V_{IN} = 16, 28, and 40 V dc	1,2,3	01	0.0	0.900	A
				02	0.0	0.700	
		L,R	1,2,3	02	0.0	0.700	
Output ripple 3/ voltage	V_{RIP}	I_{OUT} = ±.500 A, B.W. = 10 kHz to 2MHz	1,2	01		80	mV p-p
				02		175	
			3	01		120	
				02		275	
		L,R	1,2,3	02		350	
Line regulation $+V_{OUT}$	VR_{LINE}	I_{OUT} = ±.500 A, V_{IN} = 16 and 40 V dc	1,2,3	01,02		50	mV
		L,R	1,2,3	02		100	
$-V_{OUT}$			1,2,3	01,02		100	mV
		L,R	1,2,3	02		200	
Load regulation $+V_{OUT}$	VR_{LOAD}	I_{OUT} = 0 to ±.500 A,	1,2,3	01,02		50	mV
		L,R	1,2,3	02		100	
$-V_{OUT}$			1,2,3	01		100	
				02		150	
		L,R	1,2,3	02		300	

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ $-55°C \le T_C \le +125°C$ V_{IN} = 28V dc ±5 percent, no external sync, C_L = 0, unless otherwise specified	Group A subgroups	Device Type	Limits		Unit
					Min	Max	
Cross regulation 4/ ($-V_{OUT}$ only:)	X_{REG}	50% I_{OUT} = 0.500 A, $+I_{OUT}$ = 50% to 10%, $-I_{OUT}$ = 50%	1	01		6	%
		50% I_{OUT} = 0.500 A, $-I_{OUT}$ = 50% to 10%, $+I_{OUT}$ = 50%				6	
		50% I_{OUT} = .500 A, $+I_{OUT}$ = 70% to 30%, $-I_{OUT}$ = 30% to 70%	1	02		6	
		L,R				10	
Input current	I_{IN}	I_{OUT} = 0, inhibit pin (pin 1) = 0	1,2,3	01,02		12	mA
		L,R		02		15	
		I_{OUT} = 0, inhibit pin (pin 1) = open		01,02		50	
		L,R		02		100	
Input ripple current	I_{RIP}	I_{OUT} = ±.500 A, B. W. = 10 kHz to 10 MHz	1	01		60	mA p-p
			2,3	01		100	
			1	02		80	
			2,3	02		120	
		L,R	1,2,3	02		150	
Efficiency	Eff	I_{OUT} = ±.500 A	1	01,02	76		%
			2,3	01,02	74		
		L,R	1,2,3	02	70		
Isolation	ISO	500 V dc, input to output	1	01,02	100		MΩ
		L,R		02	100		
		input to case		01,02	100		
		L,R		02	100		
		output to case		01,02	100		
		L,R		02	100		

See footnotes at end of table.

TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ $-55°C \le T_C \le +125°C$ V_{IN} = 28V dc ±5 percent, no external sync, C_L = 0, unless otherwise specified	Group A subgroups	Device Type	Limits		Unit
					Min	Max	
Internal power dissipation, short circuit	P_D	$P_{IN} - P_{OUT}$	1,2,3	01,02		6	W
		L,R		02		8.5	
Switching frequency	F_S	I_{OUT} = ±.500 A	4	01,02	500	600	kHz
			5,6	01,02	480	620	
		L,R	4,5,6	02	400	700	
Sync range 5/			4,5,6	01,02	500	600	kHz
		L,R		02	500	600	
Output response to step transient load changes 6/ $+V_{OUT}$	VO_{TLOAD}	$+I_{OUT}$ = .250 A to/from .500 A, $-I_{OUT}$ = .500 A	4,5,6	01,02	-600	+600	mV pk
		L,R		02	-1200	+1200	
$-V_{OUT}$		$-I_{OUT}$ = .250 A to/from .500 A, $+I_{OUT}$ = .500 A	4,5,6	01,02	-600	+600	
		L,R		02	-1200	+1200	
Recovery time, step transient load changes 6/ 7/ $+V_{OUT}$	TT_{LOAD}	$+I_{OUT}$ = .250 A to .500 A, $-I_{OUT}$ = .500 A	4,5,6	01		200	µs
				02		600	
		L,R		02		1200	
$+V_{OUT}$		$+I_{OUT}$ = .500 A to .250 A, $-I_{OUT}$ = .500 A	4,5,6	01		500	
				02		600	
		L,R		02		1200	
$-V_{OUT}$		$-I_{OUT}$ = .250 A to .500 A, $+I_{OUT}$ = .500 A	4,5,6	01		200	
				02		600	
		L,R		02		1200	
$-V_{OUT}$		$-I_{OUT}$ = .500 A to .250 A, $+I_{OUT}$ = .500 A	4,5,6	01		500	
				02		600	
		L,R		02		1200	

See footnotes at end of table.

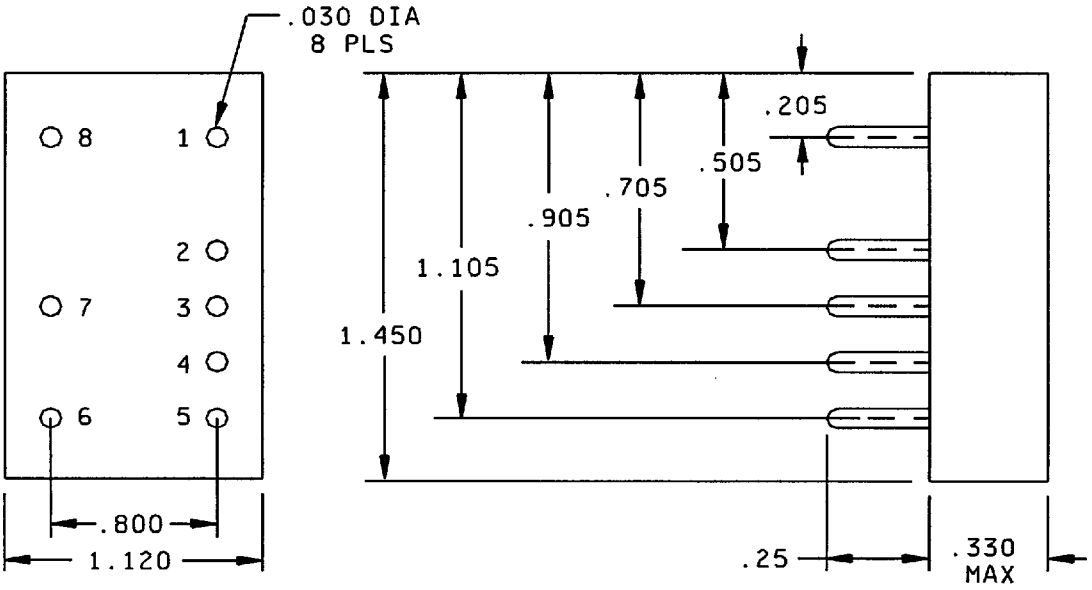
TABLE I. Electrical performance characteristics - Continued.

Test	Symbol	Conditions 1/ $-55°C \le T_C \le +125°C$ V_{IN} = 28V dc ±5 percent, no external sync, C_L = 0, unless otherwise specified	Group A subgroups	Device Type	Limits		Unit
					Min	Max	
Output response to transient step line changes 8/ 9/	VO_{TLINE}	V_{IN} = 16 V to 40 V dc, I_{OUT} = ±.500 A	4,5,6	01,02	-750	+750	mV pk
		L,R		02	-1500	+1500	
		V_{IN} = 40 V to 16 V dc, I_{OUT} = ±.500 A		01,02	-750	+750	
		L,R		02	-1500	+1500	
Recovery time to transient step line changes 8/ 9/	TT_{LINE}	V_{IN} = 16 V to 40 V dc, I_{OUT} = ±.500 A	4,5,6	01,02		1.2	ms
		L,R		02		2.4	
		V_{IN} = 40 V to 16 V dc, I_{OUT} = ±.500 A		01,02		1.2	
		L,R		02		2.4	
Turn-on delay 10/	Ton_D	V_{IN} = 0 to 40 V dc, I_{OUT} = ±.500 A	4,5,6	01,02		25	ms
		L,R		02		50	
Turn-on overshoot 8/	$Vton_{OS}$	I_{OUT} = ±.500 A	4	01,02		500	mV pk
			5,6	01,02		750	
		L,R	4,5,6	02		1500	
Load fault recovery 7/ 8/	Tr_{LF}	I_{OUT} = ±.500 A	4,5,6	01,02		50	ms
		L,R	4,5,6	02		100	
Capacitive load, 8/ 11/ (both outputs)	C_L	No effect on dc performance	4	01,02		10	µf
		L,R	4	02		10	

See footnotes at top of next page.

TABLE I. Electrical performance characteristics.

1/ Post irradiation testing shall be in accordance with 4.3.5. herein.
2/ For device type 01 the total output power available is 90 percent from either output up to 13.5 W, providing the opposite output is simultaneously carrying 10 percent of the total output power. For device type 02 the total output power available is 70 percent from either output up to 10.5 W providing the opposite output is simultaneuosly carrying 30 percent of the total output power. Each output must carry a minimum of 10 percent of the total output power in order to maintain regulation on the negative output.
3/ Bandwidth guaranteed by design. Tested for 10 kHz to 2 MHz.
4/ Cross regulation is the percent change in the measured $-V_{OUT}$ relative to the magnitude of $-V_{OUT}$ when the loads are equal and at full load, ±7.5 W.
5/ A TTL level waveform (V_{IH} = 4.5 V minimum, V_{IL} = .8 V maximum) with a 50 percent ±10 percent duty cycle applied to the sync input pin (pin 5) within the sync range frequency shall cause the converters switching frequency to become synchronous with the frequency applied to the sync input pin (pin 5).
6/ Load step transition time is 10 microseconds minimum.
7/ Recovery time is measured from the initiation of the transient to where V_{OUT} has returned to within ±1 percent of V_{OUT} final value.
8/ Parameter shall be tested as part of design characterization and after design or process changes. Therefore, the parameter shall be guaranteed to the limits specified in table I.
9/ Input step transition time greater than 10 microseconds.
10/ Turn-on delay time measurement is for either a step application of power at the input or the removal of a ground signal from the inhibit pin (pin 1) while power is applied to the input.
11/ Capacitive load may be any value from 0 to the maximum limit without compromising dc performance.

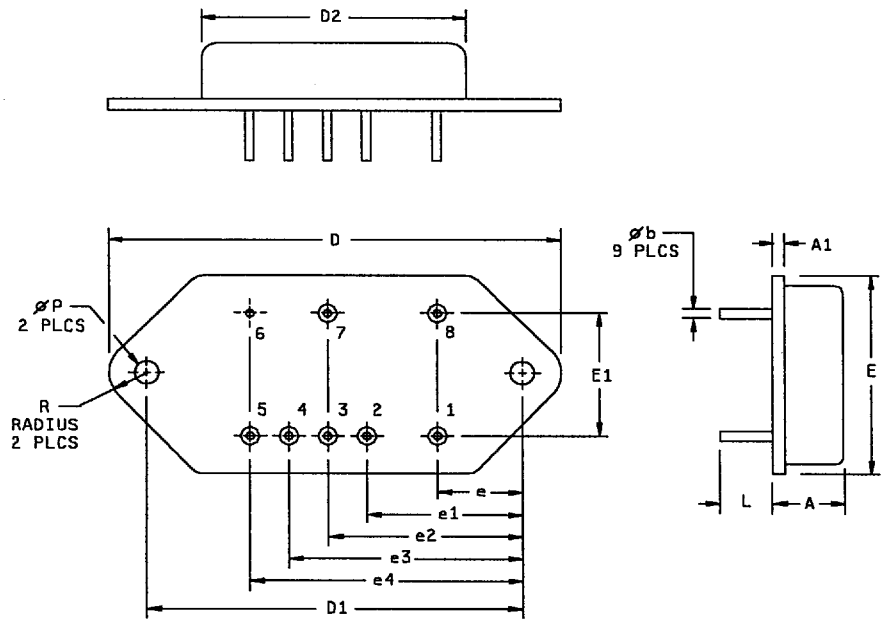


Inches	mm
.030	0.76
.205	5.21
.25	6.4
.330	8.38
.505	12.83
.705	17.91
.800	20.32
.905	22.99
1.105	28.07
1.120	28.45
1.450	36.83

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.01 for two place decimals and ±.005 for three place decimals.
4. Device weight: 30 grams maximum.

FIGURE 1. Case outline.

Case Z



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A		8.38		.330
A1	.94	1.45	.037	.057
øb	.64	.89	.025	.035
D		50.80		2.000
D1	43.82	44.07	1.725	1.735
D2		36.83		1.450
e	8.64	8.89	.340	.350
e1	16.26	16.51	.640	.650
e2	21.37	21.59	.840	.850
e3	26.41	26.67	1.040	1.050
e4	31.50	31.75	1.240	1.250
E		28.70		1.130
E1	20.07	20.57	.790	.810
L	6.10	6.60	.240	.260
øp	3.20	3.30	.126	.130
R	3.18	3.43	.125	.135

Notes:
1. The case outline Z was originally designed using inch-pound units of measurement, in the event of conflict between the metric and inch-pound units, the inch-pound shall take precedence.
2. Device weight: 30 grams maximum

FIGURE 1. Case outline - Continued

Device types	01 and 02
Case outlines	X and Z
Terminal number	Terminal symbol
1	Inhibit
2	Positive output
3	Output return
4	Negative output
5	Sync input
6	Case ground
7	Input return
8	Input

FIGURE 2. Terminal connections.

TABLE II. Electrical test requirements.

MIL-PRF-38534 test requirements	Subgroups (in accordance with MIL-PRF-38534, group A test table)
Interim electrical parameters	
Final electrical parameters	1*, 2, 3, 4, 5, 6
Group A test requirements	1, 2, 3, 4, 5, 6
Group C end-point electrical parameters	1
Post irradiation end-point electrical parameters for RHA devices	1, 2, 3, 4 ,5, 6

* PDA applies to subgroup 1.

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 test method 1015 of MIL-STD-883.

(2) T_C 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 7, 8, 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 test method 1005 of MIL-STD-883.

(2) T_C 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 (RI). Group D inspection shall be in accordance with MIL-PRF-38534.

4.3.5 Radiation Hardness Assurance (RHA). RHA qualification is required only for those devices with the RHA designator as specified herein.

	RHA level L	RHA level R	Units
Total ionizing dose tolerance level	50	100	kRad(Si)
Single event upset survival level (LET)	No guarantee	40	MeV

a. The manufacturer shall perform a worst-case and radiation susceptibility analysis on the device. This analysis shall show that the minimum performance requirements of each component has adequate design margin under worst-case operating conditions (extremes of line voltage, temperatures, load, frequency, radiation enviroment, etc.). This analysis guarantees the post-irradiation parameter limits specified in table I.

b. RHA testing shall be performed at the component level for initial device qualification, and after design changes that may affect the RHA performance of the device. As an alternative to testing, components may be procured to manufacturer radiation guarantees that meet the minimum performance requirements. Component radiation performance guarantees shall be established in compliance with MIL-PRF-19500, Group D or MIL-PRF-38535, Group E, as applicable. For components with less than adequate performance margin, component lot radiation acceptance screening shall be performed.

c. The manufacturer shall establish procedures controlling component radiation testing, and shall establish radiation test plans used to implement component lot qualification during procurement. Test plans and test reports shall be filed and controlled in accordance with the manufacturer's configuration management system.

d. The device manufacturer shall designate a RHA program manager to oversee component lot qualification, and to monitor design changes for continued compliance to RHA requirements.

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 in accordance with MIL-STD-973 using DD Form 1692, Engineering Change Proposal.

6.4 Record of users. Military and industrial users shall inform Defense Supply Center Columbus 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) 692-7603.

6.5 Comments. Comments on this drawing should be directed to DSCC-VA, Columbus, Ohio 43216-5000, or telephone (614) 692-0512.

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

STANDARD MICROCIRCUIT DRAWING SOURCE APPROVAL BULLETIN

DATE: 98-02-03

Approved sources of supply for SMD 5962-91614 are listed below for immediate acquisition only and shall be added to QML-38534 during the next revision. 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 bulletin is superseded by the next dated revision of QML-38534.

Standard microcircuit drawing PIN 1/	Vendor CAGE number	Vendor similar PIN 2/
5962-9161401HXA 5962-9161401HXC 5962-9161401HZA 5962-9161401HZC	50821 50821 50821 50821	MHF+2815D/883 MHF+2815D/883 MHF+2815DF/883 MHF+2815DF/883
5962-9161402HXA 5962-9161402HXC 5962-9161402HZA 5962-9161402HZC	50821 50821 50821 50821	SMHF+2815D/HO SMHF+2815D/HO SMHF+2815DF/HO SMHF+2815DF/HO
5962L9161402HXA 5962L9161402HXC 5962L9161402HZA 5962L9161402HZC	50821 50821 50821 50821	SMHF+2815D/HL SMHF+2815D/HL SMHF+2815DF/HL SMHF+2815DF/HL
5962R9161402HXA 5962R9161402HXC 5962R9161402HZA 5962R9161402HZC	50821 50821 50821 50821	SMHF+2815D/HR SMHF+2815D/HR SMHF+2815DF/HR SMHF+2815DF/HR
5962L9161402KXA 5962L9161402KXC 5962L9161402KZA 5962L9161402KZC	50821 50821 50821 50821	SMHF+2815D/KL SMHF+2815D/KL SMHF+2815DF/KL SMHF+2815DF/KL
5962R9161402KXA 5962R9161402KXC 5962R9161402KZA 5962R9161402KZC	50821 50821 50821 50821	SMHF+2815D/KR SMHF+2815D/KR SMHF+2815DF/KR SMHF+2815DF/KR

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 specified 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.

Vendor CAGE number	Vendor name and address
50821	Interpoint Corporation 10301 Willows Road Redmond, WA 98052

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

9004708 0034589 97T