

The documentation and process conversion measures necessary to comply with this amendment shall be completed by 30 November 1998

INCH-POUND

MIL-PRF-19500/474E
AMENDMENT 1
30 August 1998

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, SILICON, MULTIPLE DIODE ARRAYS,
TYPES 1N5768, 1N5770, 1N5772, 1N5774, 1N6100, 1N6101, 1N6496,
1N6506, 1N6507, 1N6508, 1N6509, 1N6510, AND 1N6511
JAN, JANTX, JANTXV, AND JANS

This amendment forms a part of MIL-PRF-19500/474E, dated 3 November 1997 and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 2

Pinout label for 1N6106 DIP, 1N6510 FLATPACK; delete "1N6106" and substitute "1N6101".

PAGE 3

1.5, column headers, column 6; delete "fr" and substitute "i_{rr}". column 7 header; delete "i_{rr} = 20 mA dc" and substitute "i_{rr} = 20 mA dc".

PAGE 12

Dimension table, dimension LL, Min inches column; delete ".285" and substitute ".265".

PAGE 13

Figure 7, dimension table, LL₁; delete and substitute as follows:

" | | | | | |
| LL₁ | ---- | .015 | ---- | _ 0.38 | "

PAGE 15

4.4.2, delete and substitute as follows:

"4.4.2 Group B inspection. Group B inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E, table VIa (JANS) and table VIb (JAN, JANTX, JANTXV) of MIL-PRF-19500 and as specified herein. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table I, subgroup 2 herein."

The attached insertable replacement pages listed below are replacements for stipulated pages. When the new pages have been entered in the document, insert the amendment as the cover sheet to the specification.

<u>Replacement page</u>	<u>Page replaced</u>
5	5
6	6

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PAGE 16

4.4.2.1; delete subgroup B3.

4.4.2.1, subgroup B7; conditions column; add to end of line; " Sample size = 45; c = 0."

4.4.3 delete and substitute as follows:

"4.4.3 Group C inspection. Group C inspection shall be conducted in accordance with the conditions specified for subgroup testing in appendix E, table VII of MIL-PRF-19500 and as specified herein. Electrical measurements (end-points) and delta requirements shall be in accordance with the applicable steps of table II herein."

4.4.3.1; delete:

"2036 Test condition E; 3 oz weight; three bends of 45° for flat packs; three bends of 15° for dips; omit end leads of configuration 2."

PAGE 17

4.5.6; delete and substitute as follows:

"4.5.6 Isolation current (I_R); Bridging current (I_{Rbr}). These devices shall be subjected to the isolation current/bridging current tests as specified:

- a. For types 1N5772, 1N5774, 1N6496, 1N6508, and 1N6509, the bridging current shall be measured by supplying the forcing function to every other interconnect pin and measuring the remaining interconnect pins (excluding common anode and common cathode pins), I_{Rbr} . Repeat the test, reversing the polarity of the forcing function.
- b. For types 1N6100, 1N6101, 1N6511, and 1N6510, the bridging current shall be measured by applying the forcing function to every other diode (anode and cathode simultaneously) and measuring the remaining diodes (anode and cathode simultaneously), I_{Rbr} . Repeat the test, reversing the polarity of the forcing function.
- c. For types 1N5774, 1N6496, and 1N6509, the isolation current shall be measured between the individual circuits by applying the forcing function to the anode and cathode of one circuit and measuring to the anode and cathode of other circuit, I_{Ri} . Repeat the test, reversing the polarity of the forcing function.
- d. For types 1N5768 and 1N6506, the forcing function shall be applied to every other anode and measured on the remaining anodes, I_{Rbr} . Repeat the test, reversing the polarity of the forcing function.
- e. For types 1N5770 and 1N6509, the forcing function shall be applied to every other cathode and measured on the remaining cathodes, I_{Rbr} . Repeat the test, reversing the polarity of the forcing function."

PAGE 18

Table I, subgroup 2, V_{F1} , Max limits column; delete "10" and substitute "1.0"

Table I, subgroup 4, V_{F4} , conditions column; delete " $I_F = 10$ mA" and substitute " $I_F = 100$ mA".

PAGE 20

Table I, subgroup 7, Bridging current (all devices) and Isolation current tests, units column; delete "mA dc" two places and substitute "μA dc" two places.

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Custodians:

Army - CR
Navy - EC
Air Force - 17
NASA - NA

Preparing activity:
DLA - CC

(Project 5961-1973)

Review activities:

Army - AR, AV, MI, SM
Navy - AS, CG, MC
Air Force - 19, 85, 99

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Symbol	Inches		Millimeters		Notes	Symbol	Inches		Millimeters		Notes
	Min	Max	Min	Max			Min	Max	Min	Max	
BL	---	.290	---	7.37	3	LO ₁	.005	---	0.13	---	7, 8
BW	.240	.260	6.10	6.60		LO ₂	.005	.050	0.13	1.27	2
BW ₁	.125	---	3.18	---		LS	.050 BSC		1.27 BSC		4, 6
BW ₂	.030	---	0.76	---		LT	.003	.006	0.08	0.15	5
CH	.030	.090	0.76	2.29		LU	---	.280	---	7.11	3
LL	.240	.370	6.10	9.40		LW	.010	.019	0.25	0.48	5
LO	---	.045	---	1.14	7	TL	.008	.015	0.20	0.38	10

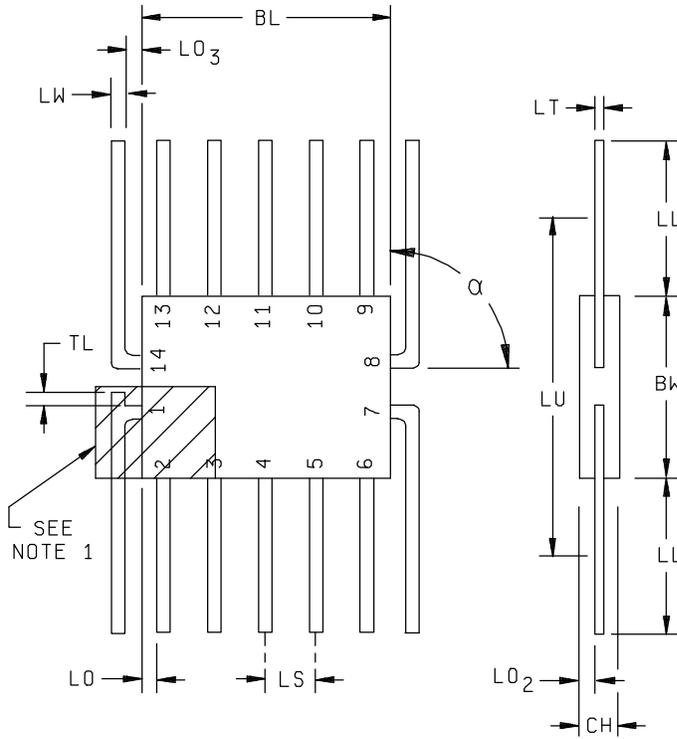
NOTES:

1. Index area: A notch or a pin 1 identification mark shall be located adjacent to pin 1 and shall be within the shaded area shown. The manufacturer's identification shall not be used as a pin 1 identification mark. Alternatively, a tab (dimension TL) may be used to identify pin 1. This tab may be located on either side as shown.
2. Dimensions LO₂ shall be measured at the point of exit of the lead from the body. Dimension LO₂ shall be .0085 inch (0.216 mm) minimum when lead finish A is solder.
3. These dimensions allow for off-center lid, meniscus, and glass overrun.
4. The basic pin spacing is .050 inch (1.27 mm) between centerlines. Each pin centerline shall be located within ±.005 inch (0.13 mm) of its exact longitudinal position relative to pins 1 and 14.
5. All leads: Increase maximum limit by .003 inch (0.08 mm) measured at the center of the flat, when lead finish is solder.
6. Eight spaces.
7. Applies to all four corners (lead numbers 1, 5, 6, and 10).
8. Dimension LO may be .000 inch (0.00 mm) if lead numbers 1, 5, 6, and 10 bend toward the cavity of the package within one lead's width from the point of entry of the lead into the body. For all bottom-brazed or side-brazed configurations, dimension LO shall be measured from the edge of the furthest extension of the metal pad or lead.
9. Optional configuration. If this configuration is used, no organic or polymeric materials shall be molded to the bottom of the package to cover the leads.
10. Optional, see note 1. If a pin 1 identification mark is used in addition to this tab, the minimum limit of dimension TL does not apply.

FIGURE 1. Physical dimensions for types 1N5768, 1N5770, and 1N5772 - Continued.

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Symbol	Inches		Millimeters		Notes
	Min	Max	Min	Max	
CH	.030	.095	0.76	2.41	
LW	.010	.019	0.25	0.48	5
LT	.003	.006	0.08	0.15	5
BL	---	.280	---	7.11	3
BW	.240	.260	6.10	6.60	
LU	---	.280	---	7.11	3
LS	.050 BSC		1.27 BSC		4, 6
TL	.008	.015	0.20	0.38	9
LL	.250	.370	6.35	9.40	
LO ₂	.010	.040	0.25	1.02	2
LO	.005	---	0.13	---	7, 8
LO ₃	.004	---	0.10	---	10
α	30°	90°	30°	90°	11

FIGURE 2. Physical dimensions for types 1N5774 and 1N6100.

Superseding page 6 of MIL-PRF-19500/474E
 dated 3 November 1997