NOTICE — WHEN GOVERNMENT DO

A. Unit shall be in accordance with MIL-S-19500, in addition to the requirements specified herein.

B. Absolute maximum ratings at 25 ± 3 degrees centigrade (ambient):
- Collector to emitter voltage (VCEO): 60 volts dc.
- Collector to emitter voltage (VCEO): 80 volts dc (Ref. 100).
- Collector to base voltage (VCBO): 100 volts dc.
- Emitter to base voltage (VEBO): 7 volts dc.

Power dissipation: (Each section)
- At 25°C case temperature: 1.5 watts.
- At 100°C case temperature: 600 milliwatts.
- At 25°C ambient temperature: 900 milliwatts.

C. Temperature range:
- Storage: minus 65 to plus 200 degrees centigrade.
- Operating junction: plus 200 degrees centigrade, max.

D. Electrical characteristics: per Table I and II.

2. Construction requirements:
A. Semiconductor: Silicon, NPN, double-diffused.
B. Case: Metal, suitably protected to withstand environmental requirements.
C. Leads: Six (6), solderable, flexible and weldable solid “Kovar conductors (.0002 inch, no. 22 gauge, grease and oil free; Gold Flashed per MIL-P-105402.

A Certificate of Compliance for lead material shall accompany each lot shipped. Each lead shall withstand an axial pull of four (4) pounds minimum.

D. Header: Shall be hermetically (Glass-Kovar) sealed and impervious to light.
E. Marking: per MIL-S-19500 and shall include the manufacturer's name and or symbol, date code, and type number. The NASA no. shall appear on each interior and exterior shipping container as well as on a tag to be included in each shipping container.

3. Environmental requirements: Shall meet the requirements of ND 1002000.

4. Pulse conditions: Width = 300 μsec; Duty Cycle = 1%. Collector-1 Base-2

5. Lowest value of hFE shall be hFE1 (numerator).

6. Values shown in parentheses in Tables, are applicable only for 1010376-3. Collector-2

7. Interprete drawing in accordance with standards prescribed by MIL-D-7027.

NOTES:

1. General requirements for each section, unless otherwise specified.

2. Construction requirements:
- Semiconductor: Silicon, NPN, double-diffused.
- Case: Metal, suitably protected to withstand environmental requirements.
- Leads: Six (6), solderable, flexible and weldable solid “Kovar conductors (.0002 inch, no. 22 gauge, grease and oil free; Gold Flashed per MIL-P-105402.

A Certificate of Compliance for lead material shall accompany each lot shipped. Each lead shall withstand an axial pull of four (4) pounds minimum.

D. Header: Shall be hermetically (Glass-Kovar) sealed and impervious to light.
E. Marking: per MIL-S-19500 and shall include the manufacturer's name and or symbol, date code, and type number. The NASA no. shall appear on each interior and exterior shipping container as well as on a tag to be included in each shipping container.

3. Environmental requirements: Shall meet the requirements of ND 1002000.

4. Pulse conditions: Width = 300 μsec; Duty Cycle = 1%. Collector-1 Base-2

5. Lowest value of hFE shall be hFE1 (numerator).

6. Values shown in parentheses in Tables, are applicable only for 1010376-3. Collector-2

7. Interpret drawing in accordance with standards prescribed by MIL-D-7027.

Original source of supply:
Fairchild Semiconductor Corp.
545 Whisman Road
Mountain View, California

1010376-1
1010376-2
1010376-3

Type No.: SP-8126
Type No.: SP-8127
Type No.: SP-8143

Same as 2318944-1, except, substitute for hFE (1ka):

- Current gain: 20 to 120 at VCE=9V; I=1mA; Ta=25°C
- Current gain: 20 to 120 at VCE=9V; I=1mA; Ta=25°C

Same as 1010376-1, except for additional requirements:
- hFE=75 to 125 at VCE=10V; I=500mA; Ta=25°C. (See note 7)

(Continued on Sheet 2)
### Table I

**TEST PROCEDURE, INSPECTION & SYMBOLS PER MIL-STD-19500**

**STANDARD TEST CONDITIONS, UNLESS OTHERWISE SPECIFIED: T A = 25°C; I E = 0 MA**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>TEST CONDITIONS</th>
<th>SYMBOL</th>
<th>LIMITS</th>
<th>MIN</th>
<th>MAX</th>
<th>UNITS</th>
<th>LTFO (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collector cut-off current</td>
<td>TE = 0</td>
<td>ICC</td>
<td>2</td>
<td>10^-9</td>
<td></td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Collector cut-off current</td>
<td>TE = 0</td>
<td>ICC</td>
<td>10</td>
<td>10^2</td>
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<td>S</td>
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</tr>
<tr>
<td>Emitter cut-off current</td>
<td>IC = 0</td>
<td>IEQ</td>
<td>2</td>
<td>nA</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Breakdown voltage</td>
<td>IE = 100μA</td>
<td>BVDE</td>
<td>7</td>
<td></td>
<td></td>
<td>VOLTS</td>
<td></td>
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<tr>
<td>Breakdown voltage (SEE NOTE 4)</td>
<td>IE = 100μA</td>
<td>BVLC</td>
<td>80</td>
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<td></td>
<td>VOLTS</td>
<td></td>
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<tr>
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<td>BVCD</td>
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<td></td>
<td>VOLTS</td>
<td></td>
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<tr>
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<td>BVDC</td>
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<td></td>
<td>VOLTS</td>
<td></td>
</tr>
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<td>IFE</td>
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<td>(50)</td>
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<tr>
<td>Static forward current</td>
<td>IC = 0</td>
<td>IFE</td>
<td>100</td>
<td>(100)</td>
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<td>VOLTS</td>
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<tr>
<td>Saturation voltage</td>
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<td></td>
<td>VOLTS</td>
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<tr>
<td>Base voltage differential</td>
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<td></td>
<td></td>
<td>mV</td>
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<tr>
<td>Base voltage differential</td>
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<td>mV</td>
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<td>VBE</td>
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<td></td>
<td>mV</td>
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<td>Small-signal, short-circuit</td>
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<td>50</td>
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<td>150</td>
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<td>OHMS</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE I (CONTINUED)**

| Parameter                        | TEST CONDITIONS | SYMBOL | LIMITS | MIN | MAX | UNITS | LTFO (%) |
| Small-signal, short-circuit      | IC = 100μA      | IEB    | 20    | 50   |      | OHMS   |          |
| Small-signal, short-circuit      | IC = 100μA      | IEB    | 50    | 150  |      | OHMS   |          |

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**FOR INFORMATION ONLY**

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