

8368602 SOLITRON DEVICES INC

61C 01440

D. T-58-07

## VOLTAGE REFERENCE

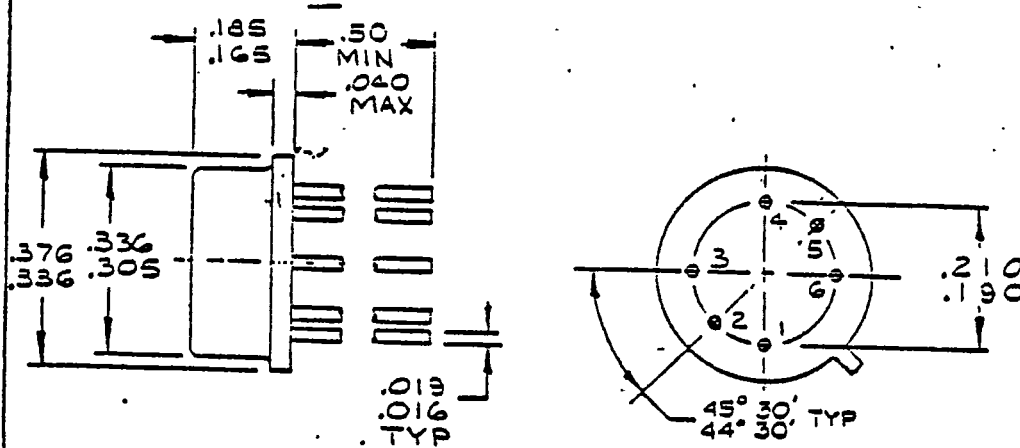
TYPE NO. CZSP 103

## GROUP A AND/OR PERFORMANCE CHARACTERISTICS

| NO. | SYMBOL          | CONDITIONS                                                              | MIN.  | MAX.            | UNITS |
|-----|-----------------|-------------------------------------------------------------------------|-------|-----------------|-------|
| 1   |                 | SUB I 100% TA = 25°C                                                    |       |                 |       |
| 2   | V <sub>O</sub>  | I = 8.5 MA dc $\pm 0.5\%$ REF. FIG. 3 PAGE 4                            | 4.496 | 4.505           | V     |
| 3   | V <sub>TC</sub> | I = 8.5 MA dc $\pm 0.5\%$                                               |       | 0.0025          | %/°C  |
| 4   |                 |                                                                         |       |                 |       |
| 5   |                 | SUB II 100% TA = -55°C                                                  |       |                 |       |
| 6   | V <sub>TC</sub> | I = 8.5 MA $\pm 0.5\%$                                                  |       | 0.0025          | %/°C  |
| 7   |                 |                                                                         |       |                 |       |
| 8   |                 | SUB III 100% TA = 125°C                                                 |       |                 |       |
| 9   | V <sub>TC</sub> | I = 8.5 MA $\pm 0.5\%$                                                  |       | 0.0025          | %/°C  |
| 10  |                 |                                                                         |       |                 |       |
| 11  |                 |                                                                         |       |                 |       |
| 12  |                 | PRODUCTION TEST SPEC. / PER. J. TENZER                                  |       |                 |       |
| 13  |                 |                                                                         |       |                 |       |
| 14  |                 | SUBGROUP I - 100% (TA = +25°C)                                          |       |                 |       |
| 15  | V <sub>O</sub>  | I = 8.5 MA dc $\pm 0.5\%$ REF. FIG. #3                                  | 4.496 | 4.505           | V     |
| 16  |                 |                                                                         |       |                 |       |
| 17  |                 | SUBGROUP II - 100% (TA = -55°C)                                         |       |                 |       |
| 18  | V <sub>O</sub>  | I = 8.5 MA dc $\pm 0.5\%$ REF. FIG. #3                                  |       | (REMAN 25°C)    | V     |
| 19  | V <sub>TC</sub> | $\Delta V_O (-55^\circ\text{C TO } +25^\circ\text{C})$ REF. TEST 2 & 5  |       | $\pm 9.0$       | MV    |
| 20  |                 |                                                                         |       |                 |       |
| 21  |                 | SUBGROUP III - 100% (TA = +125°C)                                       |       |                 |       |
| 22  | V <sub>O</sub>  | I = 8.5 MA dc $\pm 0.5\%$ REF. FIG. #3                                  |       | (REMAN 5 REMAN) | V     |
| 23  | V <sub>TC</sub> | $\Delta V_O (+25^\circ\text{C TO } +125^\circ\text{C})$ REF. TEST 2 & 9 |       | $\pm 11.25$     | MV    |
| 24  |                 |                                                                         |       |                 |       |
| 25  | NOTE:           | Manufacturing and controls                                              |       |                 |       |
| 26  |                 | Bond strength                                                           |       |                 |       |
| 27  |                 |                                                                         |       |                 |       |
| 28  |                 | Devices shall be subjected to the following                             |       |                 |       |
| 29  |                 | bond strength test procedure every 2 hours.                             |       |                 |       |
| 30  |                 | All wires of one part (20 bonds minimum) from                           |       |                 |       |
| 31  |                 | each bonding machine or operator combination                            |       |                 |       |
| 32  |                 | shall be pull tested in accordance with                                 |       |                 |       |
|     |                 | Method 2011, Test Condition D of MIL-STD-883.                           |       |                 |       |
|     |                 | Failure of any wire bond to meet the minimum                            |       |                 |       |
|     |                 | bond strength requirement shall result in                               |       |                 |       |
|     |                 | subjecting all of the parts bonded during                               |       |                 |       |
|     |                 | the previous 2 hours to the 100-percent non-                            |       |                 |       |
|     |                 | destructive bond pull tests.                                            |       |                 |       |

TYPE NO. *CZSA103*

## ADDITIONAL REQUIREMENTS



1. Dimensions in inches.
2. Case is similar to TO-5 outline.
3. All leads are isolated from case.
4. Lead material and finish to be Type K per MIL-STD-1876.

FIGURE 1. DIMENSIONS

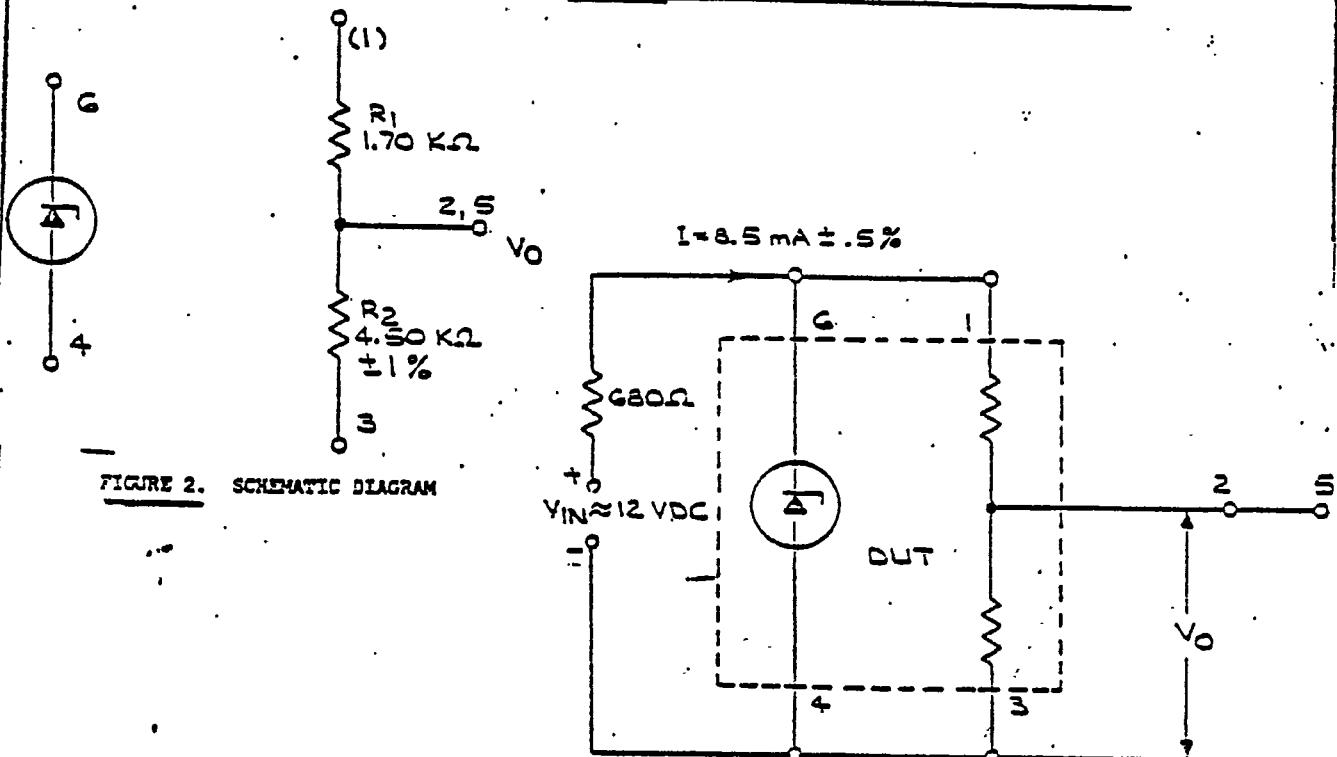


FIGURE 2. SCHEMATIC DIAGRAM

FIGURE 3. TEST CIRCUIT FOR  $V_0$  AND  $V_{TC}$