

REVISIONS

| LTR | DESCRIPTION  | DATE (YR-MO-DA) | APPROVED       |
|-----|--|-----------------|----------------|
| A   | Update to reflect latest changes in format and requirements. Editorial changes throughout. --les | 05-02-28        | Raymond Monnin |
| B   | Update drawing as part of 5 year review. -jt   | 12-03-01        | C. SAFFLE      |

THE ORIGINAL FIRST PAGE OF THIS DRAWING HAS BEEN REPLACED.

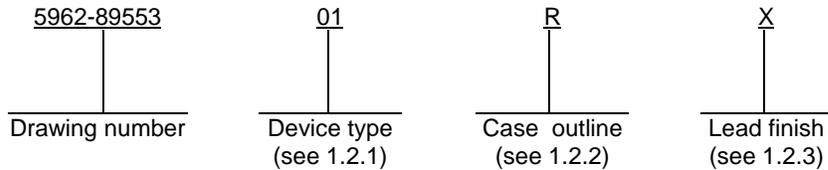
|            |       |   |   |   |   |   |   |   |   |   |    |   |   |  |  |  |  |  |  |  |
|------------|-------|---|---|---|---|---|---|---|---|---|----|---|---|--|--|--|--|--|--|--|
| REV        |       |   |   |   |   |   |   |   |   |   |    |   |   |  |  |  |  |  |  |  |
| SHEET      |       |   |   |   |   |   |   |   |   |   |    |   |   |  |  |  |  |  |  |  |
| REV        |       |   |   |   |   |   |   |   |   |   |    |   |   |  |  |  |  |  |  |  |
| SHEET      |       |   |   |   |   |   |   |   |   |   |    |   |   |  |  |  |  |  |  |  |
| REV STATUS | REV   | B | B | B | B | B | B | B | B | B | B  | B | B |  |  |  |  |  |  |  |
| OF SHEETS  | SHEET | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |   |   |  |  |  |  |  |  |  |

|  |                                   |   |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|-----------------------------------|---|---------------------------|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PMIC N/A   | PREPARED BY<br>Tim H. Noh         | <p align="center"><b>DLA LAND AND MARITIME</b><br/> <b>COLUMBUS, OHIO 43218-3990</b><br/> <a href="http://www.Landandmaritime.dla.mil">http://www.Landandmaritime.dla.mil</a></p> <p><b>MICROCIRCUITS, DIGITAL, BIPOLAR,<br/> ADVANCED<br/> SCHOTTKY TTL, OCTAL BUS TRANSCEIVERS,<br/> MONOLITHIC SILICON</b></p> |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <p align="center"><b>STANDARD<br/> MICROCIRCUIT<br/> DRAWING</b></p> <p>THIS DRAWING IS AVAILABLE<br/> FOR USE BY ALL<br/> DEPARTMENTS<br/> AND AGENCIES OF THE<br/> DEPARTMENT OF DEFENSE</p> | CHECKED BY<br>Raymond Monnin      |   |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | APPROVED BY<br>Michael A. Frye    |   |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | DRAWING APPROVAL DATE<br>89-02-01 |   |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AMSC N/A   | REVISION LEVEL<br>B               | SIZE<br>A   | CAGE CODE<br><b>67268</b> | <b>5962-89553</b> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |                                   | SHEET 1 OF 10   |                           |                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

1. SCOPE

1.1 Scope. This drawing describes device requirements for MIL-STD-883 compliant, non-JAN class level B microcircuits in accordance with MIL-PRF-38535, appendix A.

1.2 Part or Identifying Number (PIN). The complete PIN is as shown in the following example:



1.2.1 Device type. The device type identify the circuit function as follows:

| <u>Device type</u> | <u>Generic number</u> | <u>Circuit function</u>                         |
|--------------------|-----------------------|---|
| 01                 | 54AS640               | Octal bus transceivers with three-state outputs |

1.2.2 Case outlines. The case outlines 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> |
|-----------------------|-------------------------------|------------------|----------------------|
| R                     | GDIP1-T20 or CDIP2-T20        | 20               | dual-in-line         |
| S                     | GDFP2-F20 or CDFP3-F20        | 20               | flat                 |
| 2                     | CQCC1-N20                     | 20               | square chip carrier  |

1.2.3 Lead finish. The lead finish is as specified in MIL-PRF-38535, appendix A.

1.3 Absolute maximum ratings.

|  |  |
|--|--|
| Supply voltage range .....   | -0.5 V dc minimum to +7.0 V dc maximum |
| Input voltage range:   |  |
| V <sub>CC</sub> all inputs .....                                   | 0.0 V dc to +7.0 V dc                  |
| V <sub>CC</sub> I/O ports .....                                    | 0.0 V dc to +5.5 V dc                  |
| Storage temperature range .....                                    | -65°C to +150°C                        |
| Continuous power dissipation (P <sub>D</sub> ) <sup>1/</sup> ..... | 676 mW                                 |
| Lead temperature (soldering, 10 seconds) .....                     | +300°C                                 |
| Thermal resistance, junction-to-case (θ <sub>JC</sub> ) .....      | See MIL-STD-1835                       |
| Junction temperature (T <sub>J</sub> ) .....                       | +175°C                                 |

1.4 Recommended operating conditions.

|  |  |
|--|--|
| Supply voltage (V <sub>CC</sub> ) .....                    | +4.5 V dc minimum to +5.5 V dc maximum |
| Minimum high level input voltage (V <sub>IH</sub> ) .....  | 2.0 V dc                               |
| Maximum low level input voltage (V <sub>IL</sub> ) .....   | 0.8 V dc                               |
| Maximum high level output current (I <sub>OH</sub> ) ..... | -12 mA                                 |
| Maximum low level output current (I <sub>OL</sub> ) .....  | 48 mA                                  |
| Case operating temperature range (T <sub>C</sub> ) .....   | -55°C to +125°C                        |

<sup>1/</sup> Continuous power dissipation is defined as V<sub>CC</sub> x I<sub>CC</sub>, and must withstand the added P<sub>D</sub> due to short-circuit test; e.g., I<sub>OS</sub>.

|  |                  |                            |                   |
|--|------------------|----------------------------|-------------------|
| <b>STANDARD<br/>MICROCIRCUIT DRAWING</b><br>DLA LAND AND MARITIME<br>COLUMBUS, OHIO 43218-3990 | SIZE<br><b>A</b> |                            | <b>5962-89553</b> |
|  |                  | REVISION LEVEL<br><b>B</b> | SHEET<br><b>2</b> |

STANDARD MICROCIRCUIT DRAWING BULLETIN

DATE: 12-03-01

Approved sources of supply for SMD 5962-89553 are listed below for immediate acquisition information only and shall be added to MIL-HDBK-103 and QML-38535 during the next revision. MIL-HDBK-103 and QML-38535 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-38535. DLA Land and Maritime maintains an online database of all current sources of supply at <http://www.Landandmaritime.dla.mil/Programs/Smcr/>.

| Standard microcircuit drawing<br>PIN <u>1/</u> | Vendor CAGE<br>number | Vendor similar<br>PIN <u>2/</u> |
|--|-----------------------|---------------------------------|
| 5962-8955301RA                                 | 01295                 | SNJ54AS640J                     |
| 5962-8955301SA                                 | 01295                 | SNJ54AS640W                     |
| 5962-89553012A                                 | 01295                 | SNJ54AS640FK                    |

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.

Vendor CAGE  
number

Vendor name  
and address

01295

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