



**DEFENSE LOGISTICS AGENCY**  
 LAND AND MARITIME  
 POST OFFICE BOX 3990  
 COLUMBUS, OH 43218-3990

October 1, 2013

Ms. Beth Parker  
 Microsemi Lawrence  
 6 Lake Street  
 Lawrence, MA 01841-3011

Dear Ms. Parker:

Re: Notification of Re-Qualification, MIL-PRF-19500P, FSC 5961, VQ (VQE-13-027060)  
 CAGE Code: 43611, Control Number 040717

Re-qualification of your product is granted under the current issue of the specification as a result of successful qualification testing of device types JANTXV2N4854 to Performance Specification MIL-PRF-19500P, Semiconductor Devices, FSC 5961, and performance specification /421, Rev G, Amendment 1. Qualification testing was necessitated to qualify the 2N2222A die fabricated at your Microsemi AMSG Garden Grove plant into device 2N4854. Extension is granted to the other devices listed below as allowed by paragraph E.4.2.2 (Qualification by extension). Therefore, your products will be listed as shown below in Qualified Manufacturers List (QML) 19500. The effective date of this qualification is September 27, 2013. The starting lot date code is R1150.

The qualification lot Thermal Impedance conditions and upper limits are as follows (subject to change after 5 lots):

Package	I <sub>M</sub>	I <sub>H</sub>	t <sub>H</sub>	t <sub>MD</sub>	Z <sub>θJX</sub> (Screening)	Z <sub>θJX</sub> (QCI)
Similar to TO-78	5 mA	200 mA	25 ms	60 μs	43.61°C/W max	45°C/W max
U	5 mA	200 mA	25 ms	60 μs	TBD	TBD

Government Designation	ESD Class	Manufacturer Designation	Test Report Reference	Prf Spec	Manufacturer Name & Address
** 2N4854, U	3B	CDWR	19500-1722-06 19500-3807-13	/421	Same as above

6/ Testing is compliant to the latest revision of MIL-STD-750, Test Method 1020.3

Plant 1 (2N2907A): Same as above  
 Plant 11 (2N2222A): Microsemi AMSG  
 11861 Western Ave.  
 Garden Grove, CA 92641  
 (Wafer Fabrication)

\*\* Includes JAN, JANTX & JANTXV quality levels

This qualification approval is based upon test report number 19500-1722-06 for your 2N2222A die qualified at your Microsemi AMSG facility and test report number 19500-3807-13 for your 2N2907A die from your Lawrence facility, your letter dated July 26, 2013, and subsequent emails and data. Test report number 19500-3974-13 has been assigned to device JANTXV2N4854 qualification data and will not be reflected in the latest QML listing. Additionally, the test report numbers listed in the table above will replace test report numbers 19500-370-95 and 19500-163-98 on the QML-19500. This approval is subject to the conditions as stated in the SD-6 and DOD 4120.24M.

Because we are held responsible for the accuracy and currency of this Qualified Manufacturers List, please let us know if your company discontinues production of these products. Also, manufacturers are required to inform this office immediately after learning of a potential issuance of a GIDEP alert, problem advisory, or other problem notification on their QML product. If you have any questions, please contact Mr. DelloStritto at 614-692-0616.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE  
 Chief  
 Sourcing and Qualifications Division