



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

July 15, 2011

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

Dear Ms. Parker:

Re: Notification of Qualification Extension, MIL-PRF-19500N, FSC 5961; CAGE 43611; VQ-11-022861

This letter amends the original letter dated June 16, 2011 to include part numbers for /495 devices.

Qualification by extension of your products are granted under the current issue of the specification as a result of successful testing of device type JANS2N2222A as allowed by paragraph E.4.2.2 of Performance Specification MIL-PRF-19500N, Semiconductor Devices, FSC 5961, and performance specification /255, Rev W, Amendment 1. This request is to add JAN, JANTX and JANTXV quality levels to your approved Garden Grove, CA wafer fabrication die design. 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 the Qualified Manufacturers List (QML) 19500. The effective date of this qualification is April 1, 2011. The starting lot date code is R1012.

The following packages have established lot to lot statistical Thermal Impedance conditions and upper limits. The limits specified are of the worst case lot upper conditions. The conditions are as follows:

Packages	I _M	I _H	t _H	t _{MD}	Z _{θJX} (Screening)	Z _{θJX} (QCI)
T0-18, T0-39 ,UA, UB	5 mA	200 mA	10 ms	60 μs	35.5	35.5

The Thermal Impedance conditions and upper limits are as follows (subject to change after 5 lots with approval from the qualifying activity):

Packages	I _M	I _H	t _H	t _{MD}	Z _{θJX} (Screening)	Z _{θJX} (QCI)
T0-99	5 mA	200 mA	10 ms	60 μs	49.79	49.79
T0-46	5 mA	200 mA	10 ms	60 μs	41.73	41.73
U	5 mA	200 mA	10 ms	60 μs	49.59	49.59
14 Pin Dip (for device 2N6989)	5 mA	200 mA	10 ms	60 μs	40.71	40.71
14 Pin Flat-pack (for device 2N6990)	5 mA	200 mA	10 ms	60 μs	47.24	47.24

Government Designation	ESD Clas	Manufacturer Designation	Test Report Reference	Prf Spec	Manufacturer Name & Address
**2N2221A, L, UA, UB	3B	CDWR	19500-1722-06	/255	Same as above
**2N2222A, L, UA, UB	3B				
JANHCB2N2221A					
JANHCB2N2222A					
** 2N2218, A, AL	3B			/251	
** 2N2219, A, AL	3B				
** 2N6989, U ; 2N6990	3B			/559	
** 2N5581, 2N5582	3B			/423	
**2N5793, A	3B			/495	
**2N5794, A,U,UA, UC, UCA	3B				

Plant 11: Microsemi AMSG
 11861 Western Ave.
 Garden Grove, CA 92641
 (wafer fab)

** Includes JAN, JANTX & JANTXV quality levels only

This qualification approval is based upon test report number 19500-1722-06 which was approved for device JANS2N2222A using the same die design, and your subsequent emails and data. 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 concerning this letter, please contact Mr. Carl DelloStritto at 614-692-0616 or by email at carl.dello-stritto@dla.mil.

Sincerely,

/SIGNED/

JOSEPH GEMPERLINE
Chief
Sourcing and Qualifications Division