

The documentation and process conversion measures necessary to comply with this revision shall be completed by 27 November 2019.

INCH-POUND

MIL-PRF-19500/385K  
 27 August 2019  
 SUPERSEDING  
 MIL-PRF-19500/385J  
 2 June 2015

PERFORMANCE SPECIFICATION SHEET

TRANSISTOR, JUNCTION FIELD EFFECT, N-CHANNEL,  
 RADIATION HARDENED, SILICON, DEVICE TYPES 2N4856 THROUGH 2N4861,  
 JAN, JANTX, JANTXV, AND JANS

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and [MIL-PRF-19500](#).

1. SCOPE

\* 1.1 Scope. This specification covers the performance requirements for N-channel, depletion mode, silicon J-FET (Junction Field Effect transistor). Four levels of product assurance are provided for each device (JAN, JANTX, JANTXV, and JANS). RHA level designators "M", "D", "P", "L", "R", "F", "G" and "H" are appended to the device prefix to identify devices, which have passed RHA requirements.

1.2 Package outlines. The device package outlines are as follows: TO-18 (no suffix) in accordance with [figure 1](#) and surface mount (UB suffix) in accordance with [figure 2](#) for all encapsulated device types.

1.3 Maximum ratings.  $T_A = +25^\circ\text{C}$ , unless otherwise specified. (1)

P <sub>T</sub> (2) T <sub>A</sub> = +25°C	P <sub>T</sub> (3) T <sub>C</sub> = +25°C	V <sub>DS</sub> , V <sub>DG</sub>		V <sub>GS</sub>		I <sub>G</sub>	R <sub>θJA</sub>	R <sub>θJC</sub>	T <sub>J</sub> and T <sub>STG</sub>
		2N4856 2N4857 2N4858	2N4859 2N4860 2N4861	2N4856 2N4857 2N4858	2N4859 2N4860 2N4861				
<u>W</u>	<u>W</u>	<u>V dc</u>	<u>V dc</u>	<u>V dc</u>	<u>V dc</u>	<u>mA dc</u>	<u>°C/W</u>	<u>°C/mW</u>	<u>°C</u>
0.36	1.8	40	30	-40	-30	50	486	0.097	-65 to +200
0.40, all UB (4)							325		

- (1) These characteristics applicable to all package styles, unless otherwise noted.
- (2) Derate linearly 2.06 mW/°C for  $T_A > +25^\circ\text{C}$ .
- (3) Derate linearly 10.3 mW/°C for  $T_C > +25^\circ\text{C}$ .
- (4) Derate linearly 3.08 mW/°C above  $T_C = +70^\circ\text{C}$ .

Comments, suggestions, or questions on this document should be addressed to DLA Land and Maritime, ATTN: VAC, P.O. Box 3990, Columbus, OH 43218-3990, or emailed to [Semiconductor@dla.mil](mailto:Semiconductor@dla.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

