The documentation and process conversion measures necessary to comply with this document shall be completed by 23 December 2019.

INCH-POUND

MIL-PRF-19500/620L
22 August 2019
SUPERSEDING
MIL-PRF-19500/620K
w/AMENDMENT 1
27 January 2017

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DIODE, SILICON, RECTIFIER, SCHOTTKY BARRIER, ENCAPSULATED (AXIAL LEADED AND SURFACE MOUNT) AND UNENCAPSULATED, TYPES 1N5822 AND 1N6864, QUALITY LEVELS JAN, JANTX, JANTXV, JANS, JANHC, AND JANKC

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 silicon, Schottky barrier rectifier diodes. Four levels of product assurance (JAN, JANTX, JANTXV, and JANS) are provided for each device type as specified in MIL-PRF-19500, and two levels of product assurance (JANHC and JANKC) for die.

1.2 Physical dimensions.

1.2.1 Package outlines. The device package outlines for the encapsulated devices are as follows: Axial leaded package in accordance with figure 1 and square end-cap surface mount version US in accordance with figure 2.

1.2.2 Unencapsulated die topography. The dimensions and topography for JANHC and JANKC unencapsulated die are A version die in accordance with figure 3.

1.3 Maximum ratings. Unless otherwise specified, T_A = +25°C.

Types	V_{RWM} (1) (2)	I_O (1) (2)	I_{FSM}	$Z_{\theta JX}$	$R_{\theta JL}$ .375 inch (9.52 mm) lead length	$R_{\theta JEC}$	T_{STG}	T_J (1)
	V(pk)	A dc	A(pk)	°C/W	°C/W	°C/W	°C	°C
1N5822, 1N5822US	40	3.0	80	2.5	30	10	−65 to +150	−65 to +125
1N6864, 1N6864US	80	3.0	80	2.5	30	10		

(1) See figures 4, 5, 6, and 7 for derating curves and for effects of V_R on T_J. The maximum T_J depends on the voltage applied.
(2) T_A = 55°C for both axial and MELF (US) on printed circuit board (PCB), PCB = FR-4 .0625 inch (1.59mm) pad; area of each pad = .4 square inch (258.06 square mm).

Comments, suggestions, or questions on this document should be addressed to DLA Land and Maritime, VAC, P.O. Box 3990, Columbus, OH 43218-3990, or emailed to 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.

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