

The documentation and process conversion measures necessary to comply with this document shall be completed by 25 October 2019.

INCH-POUND

MIL-PRF-19500/446F
 26 June 2019
 SUPERSEDING
 MIL-PRF-19500/446E
 15 December 2008

PERFORMANCE SPECIFICATION SHEET

RECTIFIER, SEMICONDUCTOR DEVICE, UNITIZED,
 SILICON, HIGH-POWER, SINGLE PHASE, FULL WAVE BRIDGE RECTIFIER,
 TYPES SPA25, SPB25, SPC25, AND SPD25,
 QUALITY LEVELS JANTX AND JANTXV

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, single phase, full wave bridge rectifiers. Two levels of product assurance (JANTX and JANTXV) are provided for each device type as specified in [MIL-PRF-19500](#).

1.2 Physical dimensions. See [figure 1](#).

1.3 Maximum ratings. Unless otherwise specified, $T_A = +25^\circ\text{C}$.

1.3.1 Ratings applicable to all Part or Identifying Numbers (PIN). Operating temperature: -65°C to $+150^\circ\text{C}$. Storage ambient temperature: -65°C to $+150^\circ\text{C}$.

1.3.2 Ratings applicable to individual types.

Type	V_{RWM}	Bridge (1) I_{O1} at $T_C = +55^\circ\text{C}$	Bridge (2) I_{O2} at $T_C = +100^\circ\text{C}$	$I_{F(surge)}$ $I_O = 25$ A dc $T_C = +55^\circ\text{C}$ $t_p = 8.3$ ms	Barometric pressure reduced	t_{rr} $I_F = 0.5$ A $I_R = 1.0$ A $I_{rec} = 0.25$ A
	<u>V (pk)</u>	<u>A dc</u>	<u>A dc</u>	<u>A (pk)</u>	<u>mm Hg</u>	<u>μs</u>
SPA25	100	25	15	150	8	2.5
SPB25	200	25	15	150	8	2.5
SPC25	400	25	15	150	8	2.5
SPD25	600	25	15	150	8	2.5

(1) Derate from 25 A dc at $T_C = +55^\circ\text{C}$ to 15 A dc at $+100^\circ\text{C}$ (222 mA dc/ $^\circ\text{C}$).

(2) Derate from 15 A dc at $T_C = +100^\circ\text{C}$ to 0 A dc at $+150^\circ\text{C}$ (300 mA dc/ $^\circ\text{C}$).

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. 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>.

AMSC N/A

FSC 5961

