The documentation and process conversion measures necessary to comply with this document shall be completed by 24 August 2019.

INCH-POUND
MIL-PRF-19500/647G
24 May 2019
SUPERSEDING
MIL-PRF-19500/647F
19 March 2018

PERFORMANCE SPECIFICATION SHEET

SEMICONDUCTOR DEVICE, DIODE, SILICON, POWER RECTIFIER,
ULTRAFAST, TYPES 1N6778 AND 1N6779,
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 silicon, ultrafast, power rectifier diodes. Four levels of product assurance are provided for each device type as specified in MIL-PRF-19500.

1.2 Physical dimensions. See figure 1 (2 pin, isolated - TO-257).

1.3 Maximum ratings.

Types	V_{RWM} (1) I_D = 10 µA dc	I_F (1) (2) T_C =+100°C	I_{FSM} (1) t_p= 8.3 ms	$R_{\theta JC}$ (1)	$R_{\theta JA}$ (1)	T_{STG} and T_J
	Vdc	A dc	A (pk)	°C/W	°C/W	°C
1N6778	400	15	140	1.8	40	-65 to +150
1N6779	600					

(1) Each individual diode.
(2) Derate at 300 mA/°C above T_C = +100°C.

1.4 Primary electrical characteristics. Unless otherwise specified, primary electrical characteristics are at +25°C, and for each diode.

Types	V_{F1} I_F = 8 A dc	V_{F2} I_F =15 A dc	I_{R1} (see 1.3) V_R = 0.8 V_{RWM}	I_{R2} V_R = 0.8 V_{RWM} (see 1.3) T_C = +100°C	t_{rr}	C_J V_R = 5 V f = 1 MHz
	V dc	V dc	µA dc	µA dc	ns	pF
1N6778						
1N6779	1.40	1.60	10	1,000	60	300

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

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