

ULTRAFAST POWER RECTIFIER

Qualified per MIL-PRF-19500/647

DEVICES

1N6778 1N6779

LEVELS

**JAN
JANTX
JANTXV**

ABSOLUTE MAXIMUM RATINGS ($T_C = +25^\circ\text{C}$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Value	Unit
Peak Repetitive Reverse Voltage 1N6778 1N6779	V_{RWM}	400 600	Vdc
Average Forward Current ⁽¹⁾ $T_C = +100^\circ\text{C}$	I_F	15	Adc
Peak Surge Forward Current	I_{FSM}	140	A (pk)
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.8	$^\circ\text{C/W}$

Note:

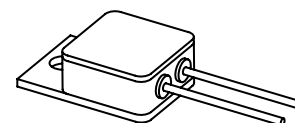
(1) Derate at 300mA/ $^\circ\text{C}$ above $T_C = +100^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = +25^\circ\text{C}$, unless otherwise noted)

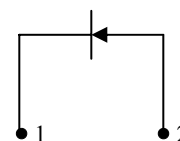
Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Breakdown Voltage $I_R = 10\mu\text{A}$ ⁽²⁾ 1N6778 1N6779	V_{BR}	400 600		Vdc
Forward Voltage $I_F = 8\text{Adc}$ ⁽²⁾ $I_F = 15\text{Adc}$ ⁽²⁾	V_{F1} V_{F2}		1.40 1.60	Vdc
Reverse Leakage Current $V_R = 320\text{V}$ ⁽²⁾ $V_R = 480\text{V}$ ⁽²⁾ 1N6778 1N6779	I_{R1}		10	μAdc
Reverse Leakage Current $T_C = +100^\circ\text{C}$ $V_R = 320\text{V}$ ⁽²⁾ $V_R = 480\text{V}$ ⁽²⁾ 1N6778 1N6779	I_{R2}		1.0	mA
Reverse Recovery Time $I_F = 0.5$, $I_{RM} = 1.0$, $I_{RR} = 0.25$	t_{rr}		60	ns
Junction Capacitance $V_R = 5\text{Vdc}$, $f = 1.0\text{MHz}$	C_J		300	pF

Notes:

(2) Pulse test, 300 μs , Duty Cycle $\leq 2\%$



**TO-257
(2 Pin Version)**



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