6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: http: //www.microsemi.com

TECHNICAL DATA SHEET

ULTRAFAST POWER RECTIFIER

Qualified per MIL-PRF-19500/647

DEVICES

1N6778 1N6779

LEVELS

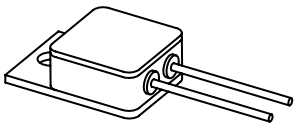
JAN
JANTX
JANTXV

ABSOLUTE MAXIMUM RATINGS (T_C = +25°C unless otherwise noted)

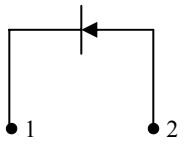
Parameters / Test Conditions		Symbol	Value	Unit
Peak Repetitive Reverse Voltage	1N6778 1N6779	V_{RWM}	400 600	Vdc
Average Forward Current (1)	T_C = +100°C	I_F	15	Adc
Peak Surge Forward Current		I_{FSM}	140	A (pk)
Thermal Resistance Junction to Case		$R_{\theta JC}$	1.8	°C/W

Note:

(1) Derate at 300mA/°C above T_C = +100°C



TO-257
(2 Pin Version)



ELECTRICAL CHARACTERISTICS *(T_A = +25°C, unless otherwise noted)*

Parameters / Test Conditions		Symbol	Min.	Max.	Unit
Breakdown Voltage I_R = 10µA (2)	1N6778 1N6779	V_{BR}	400 600		Vdc
Forward Voltage I_F = 8Adc (2) I_F = 15Adc (2)		V_{F1} V_{F2}		1.40 1.60	Vdc
Reverse Leakage Current V_R = 320V (2) V_R = 480V (2)	1N6778 1N6779	I_{R1}		10	µAdc
Reverse Leakage Current V_R = 320V (2) V_R = 480V (2)	T_C = +100°C 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 = 5Vdc, f = 1.0MHz		C_J		300	pF

Notes:

(2) Pulse test, 300µs, Duty Cycle ≤ 2%