

## ULTRAFAST SILICON POWER RECTIFIER

Qualified per MIL-PRF-19500/646

### Devices

**1N6774      1N6775      1N6776      1N6777**

### Qualified Level

**JAN  
JANTX  
JANTXV**

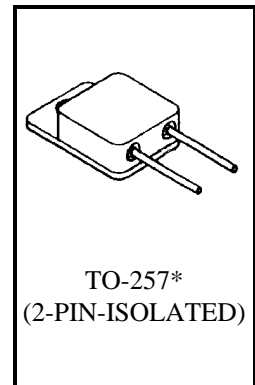
### MAXIMUM RATINGS

Ratings	Symbol	1N6774	1N6775	1N6776	1N6777	Unit
Working Peak Reverse Voltage	$V_{RWM}$	50	100	150	200	Vdc
Forward Current $T_C = +100^{\circ}\text{C}^{(1)}$	$I_F$	15				Adc
Forward Current Surge Peak $T_P = 8.3^{\circ}\text{C}$	$I_{FSM}$	180				Apk
Operating & Storage Junction Temperature	$T_{op}, T_{stg}$	-65 to +150				$^{\circ}\text{C}$

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	2.0	$^{\circ}\text{C}/\text{W}$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	40	$^{\circ}\text{C}/\text{W}$

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



\*See appendix A for package

### ELECTRICAL CHARACTERISTICS ( $T_C = +25^{\circ}\text{C}$ Unless Otherwise Noted)

outline

Characteristics	Symbol	Min.	Max.	Unit
Forward Voltage $I_F = 8.0$ Adc, pulsed $I_F = 15$ Adc, pulsed	$V_F$		1.00 1.15	Vdc
Reverse Current Leakage $V_R = 0.8$ of $V_{RWM}$	$I_R$		10	$\mu\text{Adc}$
Thermal Impedance $I_M = 15$ mAdc; $I_H = 9.9$ Adc; $t_H = 200$ ms; $t_{MD} = 35$ $\mu\text{s}$ ; $V_H = 1$ Vdc	$Z_{\theta JX}$		1.8	$^{\circ}\text{C}/\text{W}$
Breakdown Voltage $I_R = 10$ $\mu\text{Adc}$	$V_{BR}$		50 100 150 200	Vdc
Junction Capacitance $V_R = 5.0$ Vdc, $f = 1.0$ MHz	$C_J$		300	pF
Reverse Recovery Time $I_F = 1.0$ Adc; $di/dt = 50$ A/ $\mu\text{s}$	$t_{rr}$		35	$\eta\text{s}$