

WEJ7818 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 1.5 A

Output voltage

V_O : 18 V

TO-220

1. IN

2. GND

3. OUT

1 2 3

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=10V, I_o=500mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_O	$T_j=25^\circ C$	17.3	18	18.7	V
		$21V \leq V_i \leq 33V, I_o=5mA \sim 1A, P_o \leq 15W$	17.1	18	18.9	V
Load Regulation	ΔV_O	$T_j=25^\circ C, I_o=5mA \sim 1.5A$		12	360	mV
		$T_j=25^\circ C, I_o=250mA \sim 750mA$		4	180	mV
Line regulation	ΔV_O	$21V \leq V_i \leq 33V, T_j=25^\circ C$		15	360	mV
		$24V \leq V_i \leq 30V, T_j=25^\circ C$		5	180	mV
Quiescent Current	I_q	$T_j=25^\circ C$		4.5	8	mA
Quiescent Current Change	ΔI_q	$21V \leq V_i \leq 33V$			1	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		110		uV
Ripple Rejection	RR	$22V \leq V_i \leq 32V, f=120Hz, T_j=25^\circ C$	53	69		dB
Dropout Voltage	V_d	$T_j=25^\circ C, I_o=1A$		2		V
Short Circuit Current	I_{sc}	$V_i=35V, T_a=25^\circ C$		200		mA
Peak Current	I_{pk}	$T_j=25^\circ C$		2.1		A

TYPICAL APPLICATION

