

WEJ7815 Three-terminal positive voltage regulator

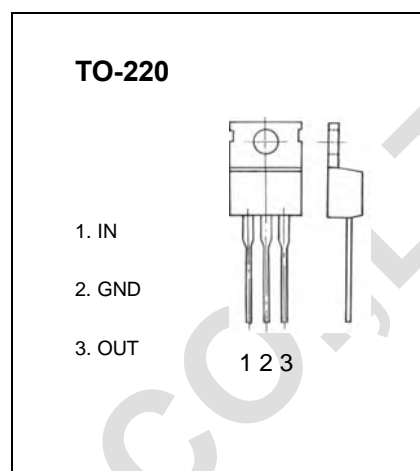
FEATURES

Maximum Output current

I_{OM} : 1.5 A

Output voltage

V_O : 15 V



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}	-20-+125	°C
Storage Temperature Range	T_{STG}	-55-+150	°C

ELECTRICAL CHARACTERISTICS ($V_i=23V, I_o=500mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	14.4	15	15.6	V
		$17.5V \leq V_i \leq 30V, I_o=5mA-1A, P_o < 15W$	14.25	15	15.75	V
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=5mA-1.5A$		12	300	mV
		$T_j=25^\circ C, I_o=250mA-750mA$		3	150	mV
Line regulation	ΔV_o	$17.5V \leq V_i \leq 30V, T_j=25^\circ C$		12	300	mV
		$20V \leq V_i \leq 26V, T_j=25^\circ C$		3	150	mV
Quiescent Current	I_q	$T_j=25^\circ C$		4.3	8	mA
Quiescent Current Change	ΔI_q	$17.5V \leq V_i \leq 30V$			1	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		90		μV
Ripple Rejection	RR	$18.5V \leq V_i \leq 28.5V, f=120Hz, T_j=25^\circ C$	54	70		dB
Dropout Voltage	V_d	$T_j=25^\circ C, I_o=1A$		2		V
Short Circuit Current	I_{sc}	$T_j=25^\circ C$		230		mA
Peak Current	I_{pk}	$T_j=25^\circ C$		2.1		A

TYPICAL APPLICATION

