



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-220 Plastic-Encapsulate Transistors

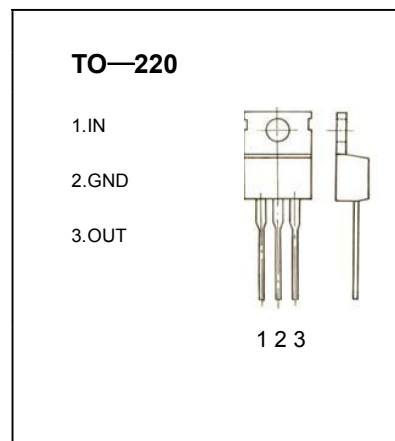
CJ7818 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

 $I_{OM}: 1.5\text{ A}$

Output voltage

 $V_o: 18\text{ V}$ 

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}	0—+125	°C
Storage Temperature Range	T_{STG}	-65—+150	°C

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

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

TYPICAL APPLICATION

