

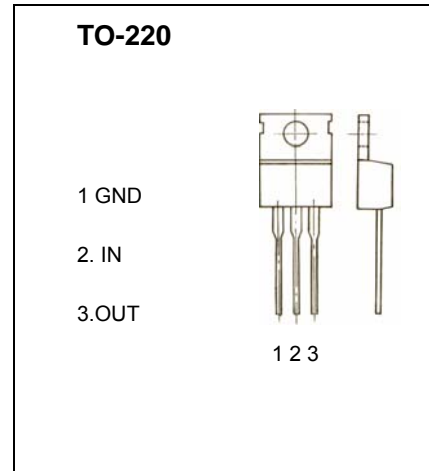


TO-220 Encapsulate Voltage Regulator

CJ7912 Three-terminal negative voltage regulator

FEATURES

- Maximum Output current I_{OM} : 1.5 A
- Output voltage V_o : - 12 V
- Continuous total dissipation
 - P_D : 2 W ($T_J = 25^\circ C$)
 - 15 W ($T_C = 25^\circ C$)



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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal resistance junction-air	$R_{\theta JA}$	65	$^\circ C/W$
Thermal resistance junction-cases	$R_{\theta JC}$	5	$^\circ C/W$
Operating Junction Temperature Range	T_{OPR}	0-150	$^\circ C$
Storage Temperature Range	T_{STG}	-65-150	$^\circ C$

ELECTRICAL CHARACTERISTICS($V_i = -19V, I_o = 500mA, 0^\circ C < T_J < 125^\circ C, C_i = 0.33\mu F, C_o = 0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_J = 25^\circ C$	-11.5	-12	-12.5	V
		$-14.5V \leq V_i \leq -27V, I_o = 5mA-1A, P \leq 15W$	-11.4	-12	-12.6	V
Load Regulation	ΔV_o	$T_J = 25^\circ C, I_o = 5mA-1.5A$		15	200	mV
		$T_J = 25^\circ C, I_o = 250mA-750mA$		5	75	mV
Line regulation	ΔV_o	$-14.5V \leq V_i \leq -30V, T_J = 25^\circ C$		5	80	mV
		$-16V \leq V_i \leq -22V, T_J = 25^\circ C$		3	30	mV
Quiescent Current	I_q	$T_J = 25^\circ C$		2	3	mA
Quiescent Current Change	ΔI_q	$-14.5V \leq V_i \leq -30V$			0.5	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		300		μV
Output voltage drift	$\Delta V_o / \Delta T$	$I_o = 5mA$		-0.8		$mV/^\circ C$
Ripple Rejection	RR	$-15V \leq V_i \leq -25V, f = 120Hz, T_J = 25^\circ C$	54	60		dB
Dropout Voltage	V_d	$T_J = 25^\circ C, I_o = 1A$		1.1		V
Peak Current	I_{pk}	$T_J = 25^\circ C$		2.1		A

TYPICAL APPLICATION

