

## TO-220 Encapsulate Voltage Regulator

**FS7906CTG** Three-terminal positive voltage regulator

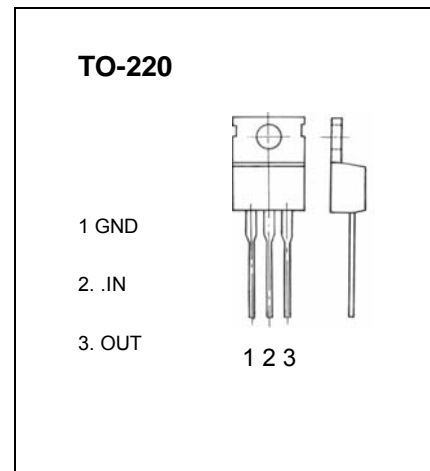
### FEATURES

Maximum Output current

$I_{OM}$ : 1.5 A

Output voltage

$V_o$ : -6 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	$V_o$	$T_j=25^\circ C$	-5.75	-6	-6.25	V
		$-8V \leq V_i \leq -21V, I_o=5mA \sim 1A$ $P_o < 15W$	-5.7	-6	-6.3	V
Load Regulation	$\Delta V_o$	$T_j=25^\circ C, I_o=5mA \sim 1.5A$		15	120	mV
		$T_j=25^\circ C, I_o=250mA \sim 750mA$		5	60	mV
Line regulation	$\Delta V_o$	$-8V \leq V_i \leq -25V, T_j=25^\circ C$		12.5	120	mV
		$-9V \leq V_i \leq -13V, T_j=25^\circ C$		4	60	mV
Quiescent Current	$I_q$	$T_j=25^\circ C$		1.5	2	mA
Quiescent Current Change	$\Delta I_q$	$-8V \leq V_i \leq -25V$			1.3	mA
	$\Delta I_q$	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		150		$\mu V$
Ripple Rejection	RR	$-9V \leq V_i \leq -19V, f=120Hz, T_j=25^\circ C$	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

