

TO-220 Encapsulate Voltage Regulator

FS7908CTG Three-terminal positive voltage regulator

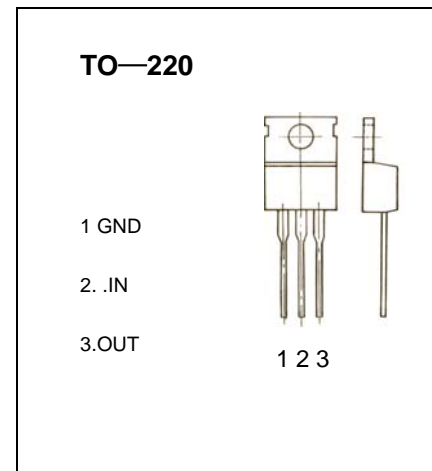
FEATURES

Maximum Output current

I_{OM} : 1.5 A

Output voltage

V_o : -8 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	$T_j=25^\circ C$	-7.7	-8	-8.3	V
		$-10.5V \leq V_i \leq -23V, I_o=5mA-1A, P_o < 15W$	-7.6	-8	-8.4	V
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=5mA-1.5A$		15	160	mV
		$T_j=25^\circ C, I_o=250mA-750mA$		5	80	mV
Line regulation	ΔV_o	$-10.5V \leq V_i \leq -25V, T_j=25^\circ C$		12.5	160	mV
		$-11V \leq V_i \leq -17V, T_j=25^\circ C$		4	80	mV
Quiescent Current	I_q	$T_j=25^\circ C$		1.5	2	mA
Quiescent Current Change	ΔI_q	$-10.5V \leq V_i \leq -25V$			1	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		200		μV
Ripple Rejection	RR	$-11.5V \leq V_i \leq -21.5V, f=120Hz, T_j=25^\circ C$	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

