



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-252-3L Plastic-Encapsulate Voltage Regulator

CJ7808 Three-terminal positive voltage regulator

FEATURES

Maximum Output current I_{OM} : 1.5 A

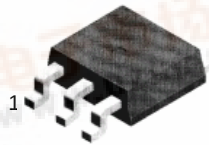
Output voltage V_o : 8 V

Continuous total dissipation

P_D : 1.25 W

TO-252-3L

1. IN
2. GND
3. OUT



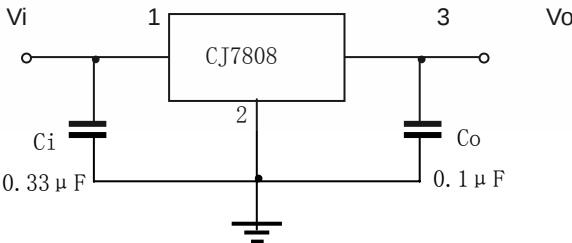
ABSOLUTE MAXIMUM RATINGS(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0~150	°C
Storage Temperature Range	T_{STG}	-65~150	°C

ELECTRICAL CHARACTERISTICS($V_i=14V, I_o=500mA, 0^{\circ}C < T_j < 125^{\circ}C, C_i=0.33 \mu F, C_o=0.1 \mu F$, 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
		$10.5V \leq V_i \leq 23V, I_o=5mA-1A, P \leq 15W$	7.6	8	8.4	V
Load Regulation	ΔV_o	$T_j=25^{\circ}C, I_o=5mA-1.5A$		12	160	mV
		$T_j=25^{\circ}C, I_o=250mA-750mA$		4	80	mV
Line regulation	ΔV_o	$10.5V \leq V_i \leq 25V, T_j=25^{\circ}C$		6	160	mV
		$11V \leq V_i \leq 17V, T_j=25^{\circ}C$		2	80	mV
Quiescent Current	I_q	$T_j=25^{\circ}C$		4.3	8	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	$10Hz \leq f \leq 100KHz$		52		μV
Ripple Rejection	RR	$11.5V \leq V_i \leq 21.5V, f=120Hz, T_j=25^{\circ}C$	55	72		dB
Dropout Voltage	V_d	$T_j=25^{\circ}C, I_o=1A$		2		V
Short Circuit Current	I_{sc}	$V_i=35V, T_j=25^{\circ}C$		450		mA
Peak Current	I_{pk}	$T_j=25^{\circ}C$		2.2		A

TYPICAL APPLICATION



Typical Characteristics

CJ7808

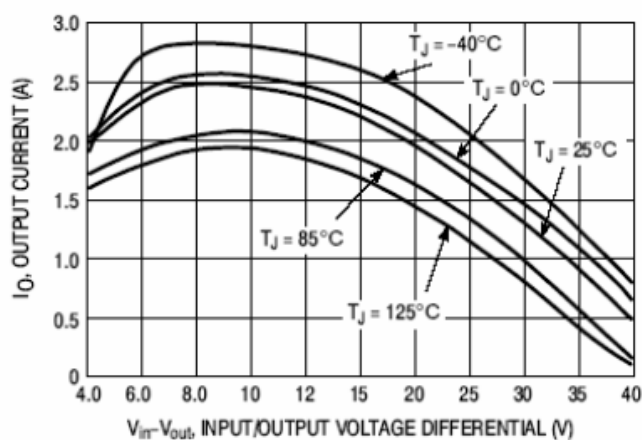


Figure 1 Peak Output Current as a Function of Input/Output Differential Voltage

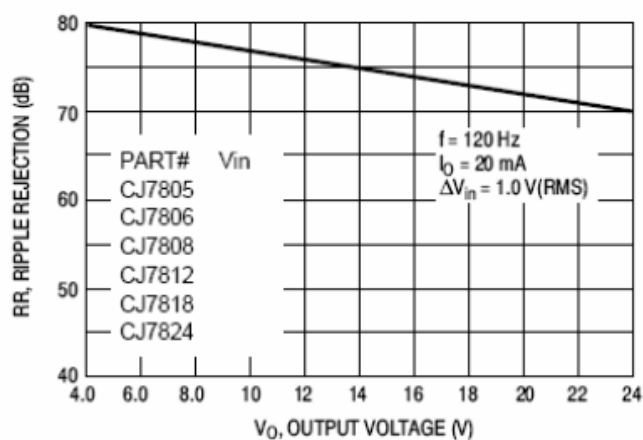


Figure 2 Ripple Rejection as a Function of Output Voltages

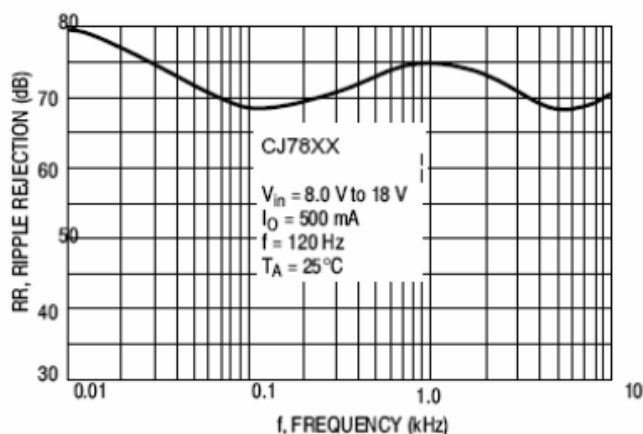


Figure 3 Ripple Rejection as a Function of Frequency

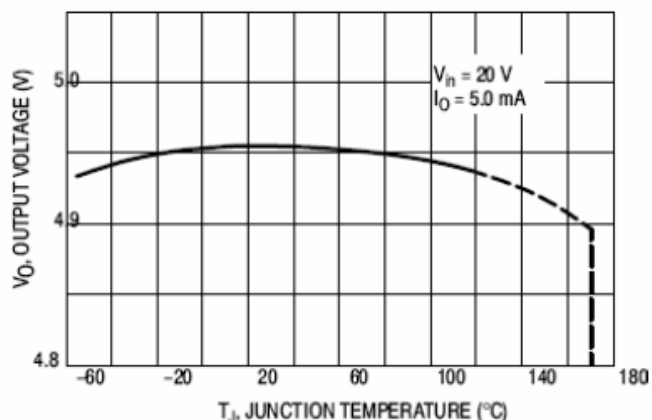


Figure 4 Output Voltage as a Function of Junction Temperature

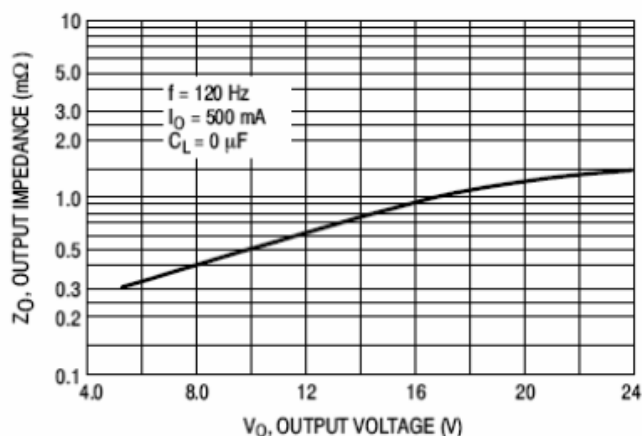


Figure 5 Output Impedance as a Function of Output Voltage

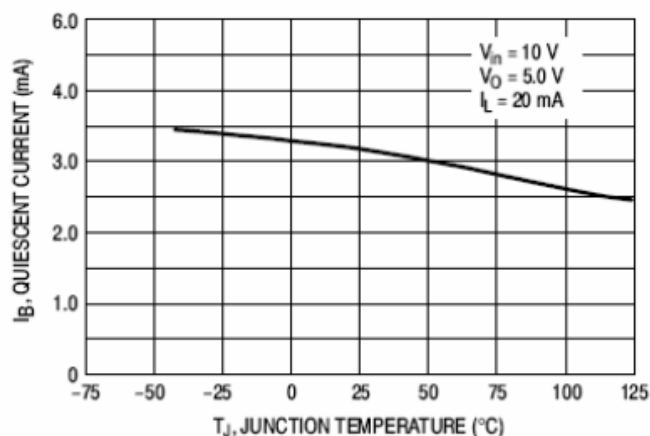


Figure 6 Quiescent Current as a Function of Temperature