

78M08

Three-terminal positive voltage regulator

FEATURES

Maximum output current

I_{OM} : 0.5 A

Output voltage

V_O : 8V

Continuous total dissipation

P_D : 1.25 W

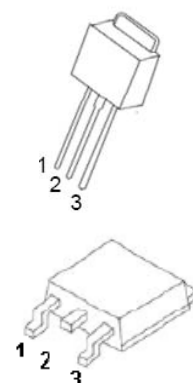
TO-251-3L

TO-252-2L

1.IN

2.GND

3.OUT



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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	25	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=10V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_O	$10.5 \leq V_i \leq 23V, I_o=5mA-350mA, P_o \leq 15W$	7.6	8	8.4	V
Load Regulation	ΔV_O	$I_o=5mA-500mA$		20	160	mV
		$I_o=5mA-200mA$		10	80	mV
Line Regulation	ΔV_O	$10.5V \leq V_i \leq 25V, I_o=200mA$	-	6	100	mV
		$11V \leq V_i \leq 25V, I_o=200mA$	-	2	50	mV
Quiescent Current	I_q		-	4.6	6	mA
Quiescent Current Change	ΔI_q	$10.5V \leq V_i \leq 25V, I_o=200mA$			0.8	mA
	ΔI_q	$5mA \leq I_o \leq 350mA$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		52		μV
Ripple Rejection	RR	$11.5V \leq V_i \leq 21.5V, f=120Hz, I_o=300mA$	56	80		dB
Dropout Voltage	V_d	$I_o=350mA$		2		V
Short Circuit Current	I_{SC}	$V_i=14V$		250		mA
Peak Current	I_{pk}			0.5		A

TYPICAL APPLICATION

