



TO-251-3L/TO-252-2L Plastic-Encapsulate Regulators

78M06 Three-terminal positive voltage regulator

FEATURES

Maximum output current

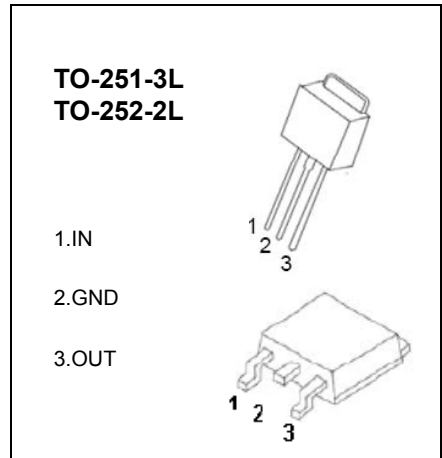
I_{OM} : 0.5 A

Output voltage

V_O : 6V

Continuous total dissipation

P_D : 1.25 W



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 ($V_i=11V$, $I_O=350mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	V_o		25°C	5.75	6	6.25	V
		$8V \leq V_i \leq 21V$, $I_o=5mA-350mA$ $P_o \leq 15W$	0-125°C	5.7	6	6.3	V
Load Regulation	ΔV_o	$I_o=5mA-0.5A$	25°C		18	120	mV
		$I_o=5mA-200mA$	25°C		10	60	mV
Line Regulation	ΔV_o	$8V \leq V_i \leq 25V$, $I_o=200mA$	25°C		5	100	mV
		$9V \leq V_i \leq 25V$, $I_o=200mA$	25°C		1.5	50	mV
Quiescent Current	I_q		25°C	4.3	6	mA	
Quiescent Current Change	ΔI_q	$9V \leq V_i \leq 25V$, $I_o=200mA$	0-125°C			0.8	mA
		$5mA \leq I_o \leq 350mA$	0-125°C			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C		45	uV	
Ripple Rejection	RR	$9V \leq V_i \leq 19V$, $f=120Hz$, $I_o=300mA$	0-125°C	59	80	dB	
Dropout Voltage	V_d	$I_o=350mA$	25°C		2	V	
Short Circuit Current	I_{sc}	$V_i=11V$	25°C		270	mA	
Peak Current	I_{pk}		25°C		0.5	A	

TYPICAL APPLICATION

