

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

HM78M06 Three-terminal positive voltage regulator

FEATURES

Maximum output current

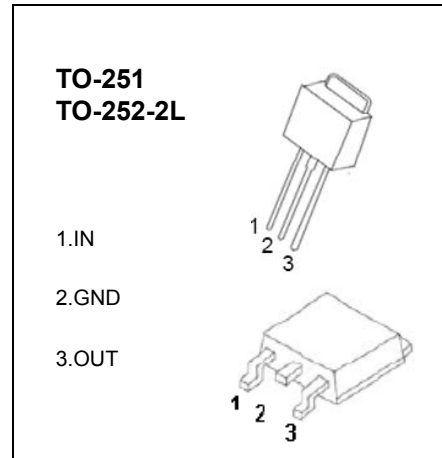
I_{OM} : 0.5 A

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
		$8V \leq V_i \leq 21V$, $I_O=5mA-350mA$ $P_O \leq 15W$	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
	ΔI_q	$5mA \leq I_O \leq 350mA$ 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

