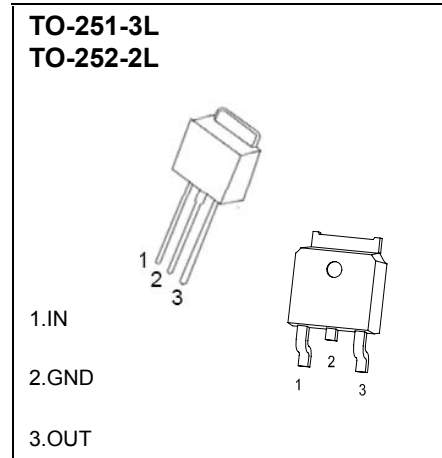


# TO-252-2L TO-251-3L Plastic-Encapsulate MOSFETS

## 78M06 Three-terminal positive voltage regulator

### FEATURES

- Maximum output current  
 $I_{OM}$ : 1.0 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	$\Delta V_o$	$I_o=5mA-0.5A$	25°C		18	120	mV
		$I_o=5mA-200mA$	25°C		10	60	mV
Line Regulation	$\Delta V_o$	$8V \leq V_i \leq 25V$ , $I_o=200mA$	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	$\Delta I_q$	$9V \leq V_i \leq 25V$ , $I_o=200mA$	0-125°C			0.8	mA
	$\Delta I_q$	$5mA \leq I_o \leq 350mA$	0-125°C			0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	25°C		45	$\mu V$	
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

