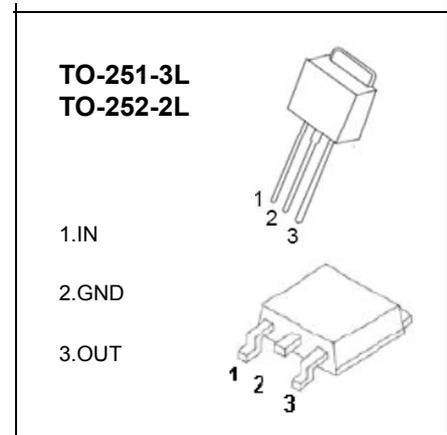


TO-252-2L TO-251-3L Plastic-Encapsulate MOSFETS

78M05 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 1 A
- Output voltage
 V_O : 5V
- 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 ($V_i=10V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$25^\circ C$	4.8	5	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-350mA$ $P_o \leq 15W$	0-125°C	4.75	5	5.25
Load Regulation	ΔV_o	$I_o=5mA-0.5A$	25°C	15	100	mV
		$I_o=5mA-200mA$	25°C	5	50	mV
Line Regulation	ΔV_o	$7V \leq V_i \leq 25V, I_o=200mA$	25°C	3	100	mV
		$8V \leq V_i \leq 25V, I_o=200mA$	25°C	1	50	mV
Quiescent Current	I_q		25°C	4.2	6	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 25V, I_o=200mA$	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	40	200	μV
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz, I_o=300mA$	0-125°C	62	80	dB
Dropout Voltage	V_d	$I_o=350mA$	25°C	2	2.5	V
Short Circuit Current	I_{sc}	$V_i=10V$	25°C	300		mA
Peak Current	I_{pk}		25°C		1	A

TYPICAL APPLICATION

