

**FEATURES**

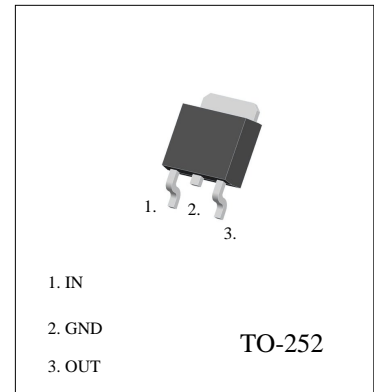
Maximum output current

 $I_{OM}: 0.5\text{ A}$ 

Output voltage

 $V_O: 5\text{ V}$ 

Continuous total dissipation

 $P_D: 1.25\text{ W}$ 
**78M05**

**ABSOLUTE MAXIMUM RATINGS** (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	$V_I$	25	V
Operating Junction Temperature Range	TOPR	0-125	°C
Storage Temperature Range	TSTG	-65-150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25^\circ\text{C}$	4.8	5	5.2	V
		$7\text{V} \leq V_i \leq 20\text{V}$ , $I_o=5\text{mA}-350\text{mA}$ $P_o \leq 15\text{W}$	4.75	5	5.25	V
Load Regulation	$\Delta V_o$	$I_o=5\text{mA}-0.5\text{A}$	$25^\circ\text{C}$	15	100	mV
		$I_o=5\text{mA}-200\text{mA}$	$25^\circ\text{C}$	5	50	mV
Line Regulation	$\Delta V_o$	$7\text{V} \leq V_i \leq 25\text{V}$ , $I_o=200\text{mA}$	$25^\circ\text{C}$	3	100	mV
		$8\text{V} \leq V_i \leq 25\text{V}$ , $I_o=200\text{mA}$	$25^\circ\text{C}$	1	50	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$		4.2	6	mA
Quiescent Current Change	$\Delta I_q$	$8\text{V} \leq V_i \leq 25\text{V}$ , $I_o=200\text{mA}$	$0-125^\circ\text{C}$		0.8	mA
	$\Delta I_q$	$5\text{mA} \leq I_o \leq 350\text{mA}$	$0-125^\circ\text{C}$		0.5	mA
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$	$25^\circ\text{C}$	40	200	$\mu\text{V}$
Ripple Rejection	RR	$8\text{V} \leq V_i \leq 18\text{V}$ , $f=120\text{Hz}$ , $I_o=300\text{mA}$	$0-125^\circ\text{C}$	62	80	dB
Dropout Voltage	$V_d$	$I_o=350\text{mA}$	$25^\circ\text{C}$	2	2.5	V
Short Circuit Current	$I_{sc}$	$V_i=10\text{V}$	$25^\circ\text{C}$	300		mA
Peak Current	$I_{pk}$	$25^\circ\text{C}$		0.5		A