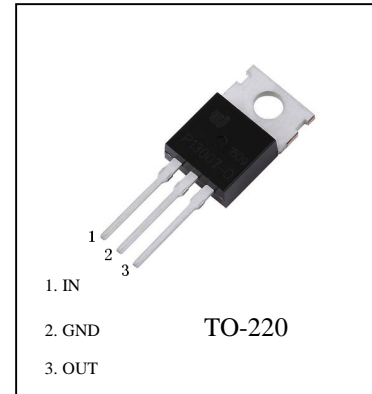


FEATURES

- Output Current up to 0.5 A
- Thermal Overload Protection
- Short Circuit Protection
- Output Transistor Safe Operating Area Protection

78M06

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	25	V
Continuous total dissipation	P_D	1.5	W
Operating Junction Temperature	T_{OPR}	0-125	°C
Storage Temperature Range	T_{STG}	-65-150	°C

ELECTRICAL CHARACTERISTICS ($V_i=10V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

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