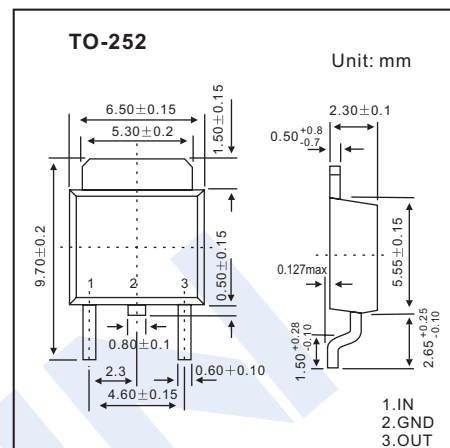


Three-Terminal Positive Voltage Regulator

LM78M06



Features

- Maximum Output current I_{om} : 0.5A
- Output Voltage V_o : 6V
- Continuous Total Dissipation P_d : 1.25W

Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

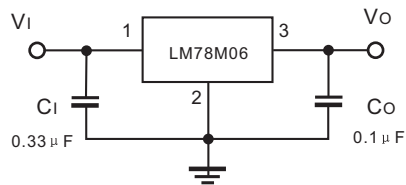
Parameter	Symbol	Rating	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{opr}	-55 ~ +125	°C
Storage Temperature Range	T_{stg}	-65 ~ +150	°C

Electrical Characteristics ($V_i=11V$, $I_o=350mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

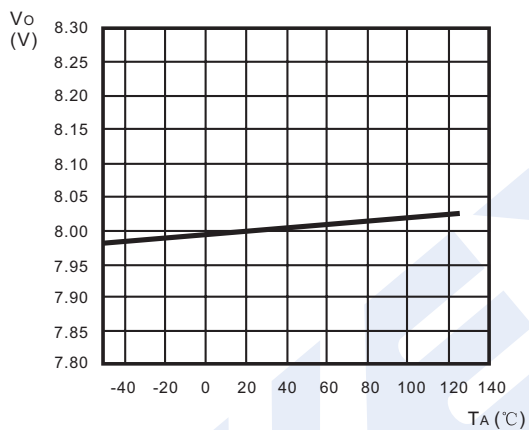
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_J = 25^\circ C$	5.75	6	6.25	V
		$T_J = 0 \sim 125^\circ C$, $8V \leq V_i \leq 21V$, $I_o = 5mA \sim 350mA$, $P_o \leq 15W$	5.7	6	6.3	V
Load Regulation	ΔV_o	$T_J = 25^\circ C$, $I_o = 5mA \sim 0.5A$		18	120	mV
		$T_J = 25^\circ C$, $I_o = 5mA \sim 200mA$		10	60	mV
Line Regulation	ΔV_o	$T_J = 25^\circ C$, $8V \leq V_i \leq 25V$, $I_o = 200mA$		5	100	mV
		$T_J = 25^\circ C$, $9V \leq V_i \leq 25V$, $I_o = 200mA$		1.5	50	mV
Quiescent Current	I_q	$T_J = 25^\circ C$		4.3	6	mA
Quiescent current Change	ΔI_q	$T_J = 0 \sim 125^\circ C$, $9V \leq V_i \leq 25V$, $I_o = 200mA$			0.8	mA
		$T_J = 0 \sim 125^\circ C$, $5mA \leq I_o \leq 350mA$			0.5	
Output Noise Voltage	V_N	$T_J = 25^\circ C$, $10Hz \leq f \leq 100KHz$		45		μV
Ripple Rejection	RR	$T_J = 0 \sim 125^\circ C$, $9V \leq V_i \leq 19V$, $f = 120Hz$, $I_o = 300mA$	59	80		dB
Dropout Voltage	V_D	$T_J = 25^\circ C$, $I_o = 350mA$		2		V
Short Circuit Current	I_{sc}	$T_J = 25^\circ C$, $V_i = 11V$		270		mA
Peak Current	I_{PK}	$T_J = 25^\circ C$		0.7		A

LM78M06

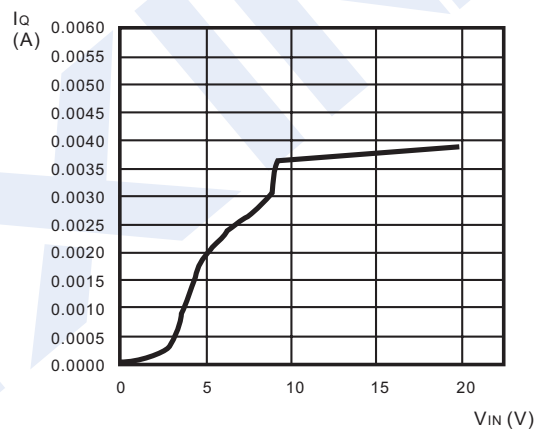
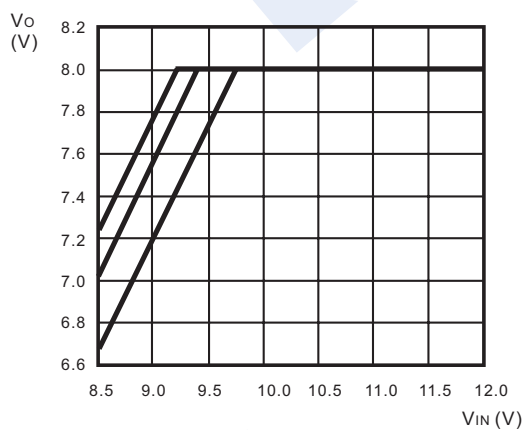
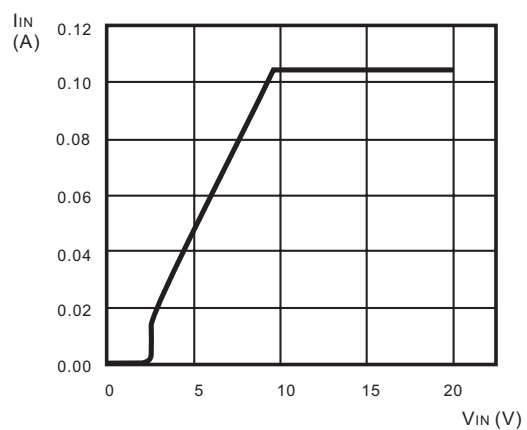
■ Typical Application



■ Typical Characteristics



Ambient Temperature vs Output Voltage

Input Voltage vs Quiescent Current (T_J = 25°C)Input Voltage vs Output Voltage (T_J = 25°C)Input Voltage vs Input Current (T_J = 25°C)