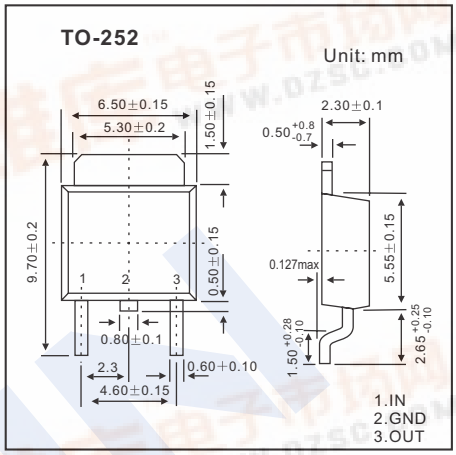
Three-Terminal Positive Voltage Regulator

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)

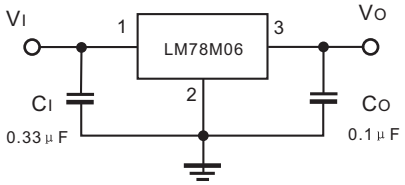
Parameter	Symbol	Rating	Unit
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	-55 ~ +125	℃
Storage Temperature Range	T_{STG}	-65 ~ +150	℃

Electrical Characteristics (V_I=11V, I_O=350mA,C_I=0.33μF,C_O=0.1μF, unless otherwise specified)

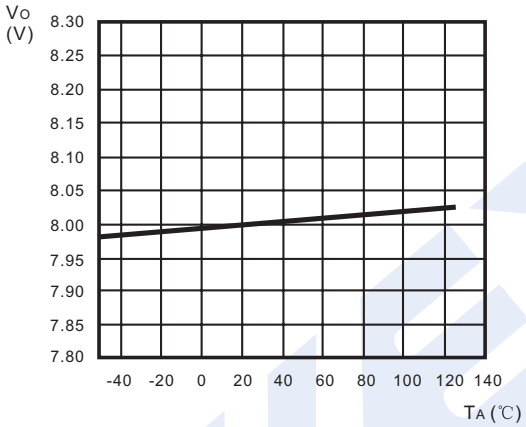
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Output Voltage	V_O	T_J = 25℃	5.75	6	6.25	V
		T_J = 0~125℃, 8V≤V_I≤21V, I_O=5mA~350mA, P_O≤15W	5.7	6	6.3	V
Load Regulation	△V_O	T_J = 25℃, I_O=5mA~0.5A		18	120	mV
		T_J = 25℃, I_O=5mA~200mA		10	60	mV
Line Regulation	△V_O	T_J = 25℃, 8V≤V_I≤25V, I_O = 200mA		5	100	mV
		T_J = 25℃, 9V≤V_I≤25V, I_O = 200mA		1.5	50	mV
Quiescent Current	I_Q	T_J = 25℃		4.3	6	mA
Quiescent current Change	△I_Q	T_J = 0~125℃, 9V≤V_I≤25V, I_O = 200mA			0.8	mA
		T_J = 0~125℃, 5mA≤I_O≤350mA			0.5	
Output Noise Voltage	V_N	T_J = 25℃, 10Hz≤f≤100KHz		45		μV
Ripple Rejection	RR	T_J=0~125℃, 9V≤V_I≤19V, f=120Hz, I_O=300mA	59	80		dB
Dropout Voltage	V_D	T_J = 25℃, I_O = 350mA		2		V
Short Circuit Current	I_{SC}	T_J = 25℃, V_I = 11V		270		mA
Peak Current	I_{PK}	T_J = 25℃		0.7		A

LM78M06

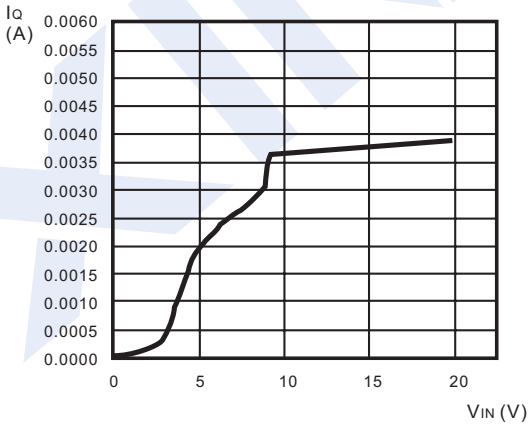
■ Typical Application



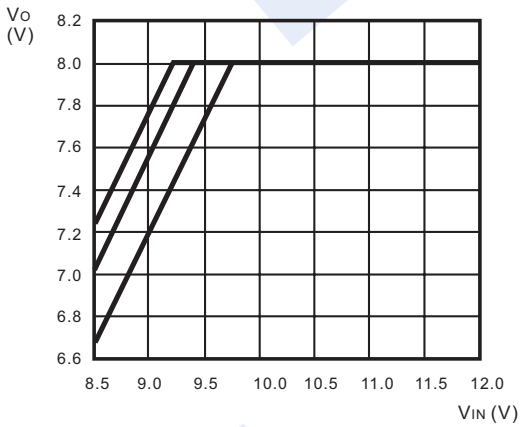
■ Typical Characteristics



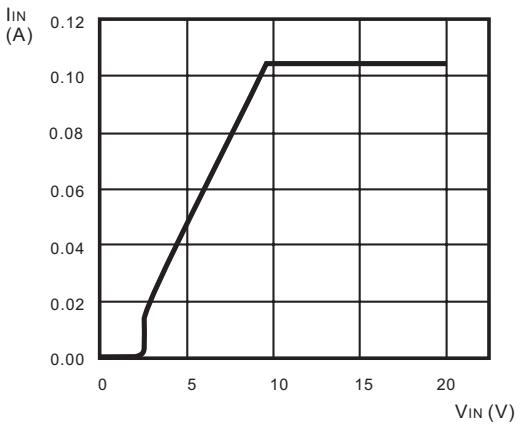
Ambient Temperature vs Output Voltage



Input Voltage vs Quiescent Current (T_J = 25℃)



Input Voltage vs Output Voltage (T_J = 25℃)



Input Voltage vs Input Current (T_J = 25℃)