

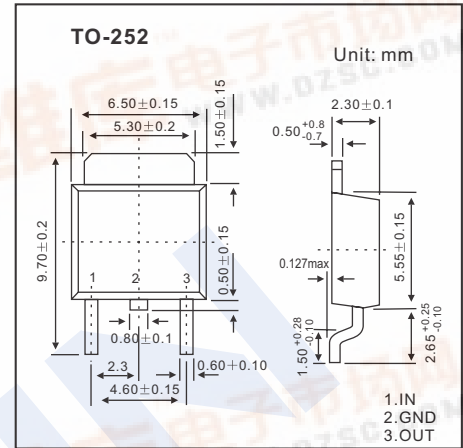
SMD Type IC

Three-Terminal Positive Voltage Regulator

LM78M08

■ Features

- Maximum Output current I_{om} : 0.5A
- Output Voltage V_o : 8V
- Continuous Total Dissipation P_d : 1.25W ($T_A = 25^\circ C$)



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

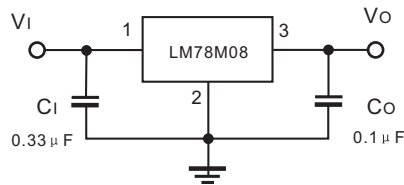
Parameter	Symbol	Rating	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{opr}	-55 ~ +125	$^\circ C$
Storage Temperature Range	T_{stg}	-65 ~ +150	$^\circ C$

■ Electrical Characteristics ($V_i=14V, I_o=350mA, C_i=0.33 \mu F, C_o=0.1 \mu F$, unless otherwise specified)

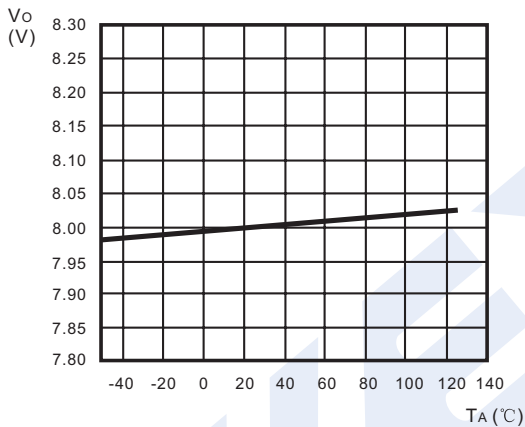
Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_J = 25^\circ C$	7.7	8	8.3	V
		$T_J = 0 \sim 125^\circ C, 10.5V \leq V_i \leq 23V, I_o = 5mA \sim 350mA, P_o \leq 15W$	7.6	8	8.4	V
Load Regulation	ΔV_o	$T_J = 25^\circ C, I_o = 5mA \sim 0.5A$		20	160	mV
		$T_J = 25^\circ C, I_o = 5mA \sim 200mA$		10	80	mV
Line Regulation	ΔV_o	$T_J = 25^\circ C, 10.5V \leq V_i \leq 25V, I_o = 200mA$		6	100	mV
		$T_J = 25^\circ C, 11V \leq V_i \leq 25V, I_o = 200mA$		2	50	mV
Quiescent Current	I_q	$T_J = 25^\circ C$		4.6	6	mA
Quiescent current Change	ΔI_q	$T_J = 0 \sim 125^\circ C, 10.5V \leq V_i \leq 25V, I_o = 200mA$			0.8	mA
		$T_J = 0 \sim 125^\circ C, 5mA \leq I_o \leq 350mA$			0.5	
Output Noise Voltage	V_N	$T_J = 25^\circ C, 10Hz \leq f \leq 100KHz$		52		μV
Ripple Rejection	RR	$T_J = 0 \sim 125^\circ C, 11.5V \leq V_i \leq 21.5V, f = 120Hz, I_o = 300mA$	56	80		dB
Dropout Voltage	V_D	$T_J = 25^\circ C, I_o = 350mA$		2		V
Short Circuit Current	I_{sc}	$T_J = 25^\circ C, V_i = 14V$		250		mA
Peak Current	I_{pk}	$T_J = 25^\circ C$		0.7		A

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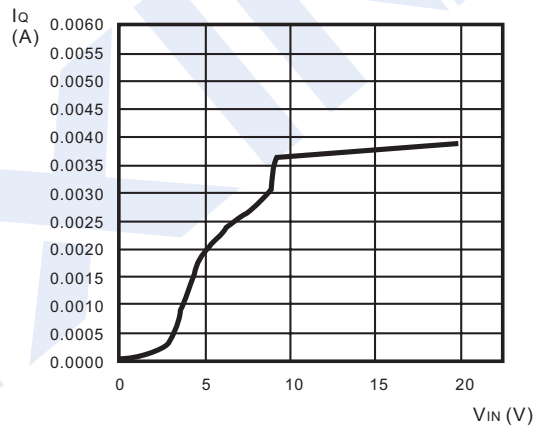
Typical Application



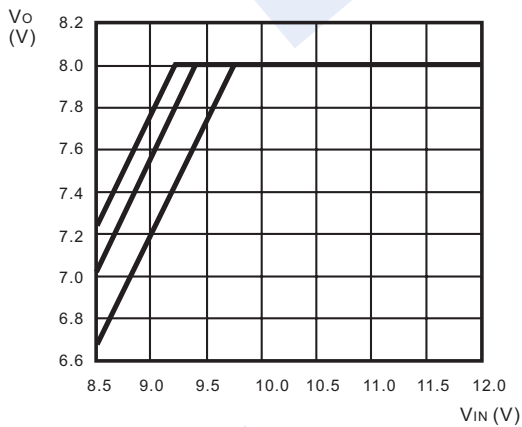
Typical Characteristics



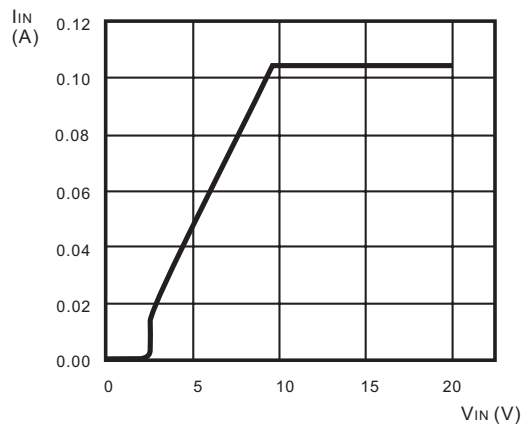
Ambient Temperature vs Output Voltage



Input Voltage vs Quiescent Current (TJ = 25°C)



Input Voltage vs Output Voltage (TJ = 25°C)



Input Voltage vs Input Current (TJ = 25°C)