

Three-terminal positive voltage regulator

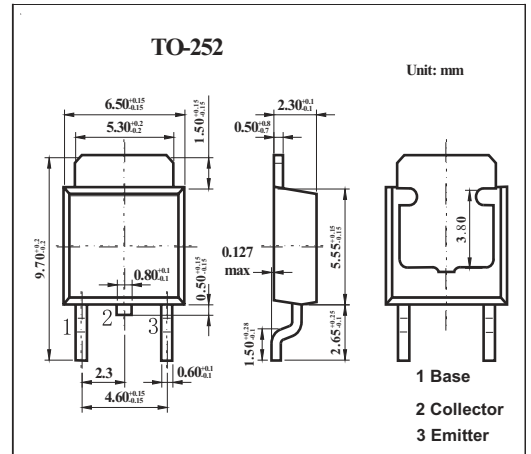
FEATURES

- Maximum output current IOM: 0.5 A
- Output voltage VO: 12V
- Continuous total dissipation

$$P_D: 1.25 \text{ W (} T_a = 25 \text{ }^\circ\text{C)}$$

MECHANICAL DATA

- Case: TO-252 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

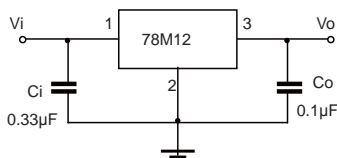
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_i=19\text{V}$, $I_o=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	11.5	12	12.5	V
		$14.5 \leq V_i \leq 27\text{V}$, $I_o=5\text{mA}-350\text{mA}$, $-25-125^\circ\text{C}$	11.4	12	12.6	V
Load Regulation	ΔV_o	$I_o=5\text{mA}-500\text{mA}$, 25°C		25	240	mV
		$I_o=5\text{mA}-200\text{mA}$, 25°C		10	120	mV
Line Regulation	ΔV_o	$14.5 \leq V_i \leq 30\text{V}$, $I_o=200\text{mA}$, 25°C		10	100	mV
		$16 \leq V_i \leq 30\text{V}$, $I_o=200\text{mA}$, 25°C		3	50	mV
Quiescent Current	I_q	25°C		4.6	6	mA
Quiescent Current Change	ΔI_q	$14.5 \leq V_i \leq 30\text{V}$, $I_o=200\text{mA}$, $-25-125^\circ\text{C}$			0.8	mA
		$5\text{mA} \leq I_o \leq 350\text{mA}$, $-25-125^\circ\text{C}$			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$, 25°C		75		$\mu\text{V}/V_o$
Ripple Rejection	RR	$15 \leq V_i \leq 25\text{V}$, $f=120\text{Hz}$, $I_o=300\text{mA}$, $-25-125^\circ\text{C}$	55	80		dB
Dropout Voltage	V_d	$I_o=350\text{mA}$, 25°C		2		V
Short Circuit Current	I_{sc}	$V_i=19\text{V}$, 25°C		240		mA
Peak Current	I_{pk}	25°C		0.7		A

* Pulse test.

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

