

SOT-89 Three-terminal positive voltage regulator

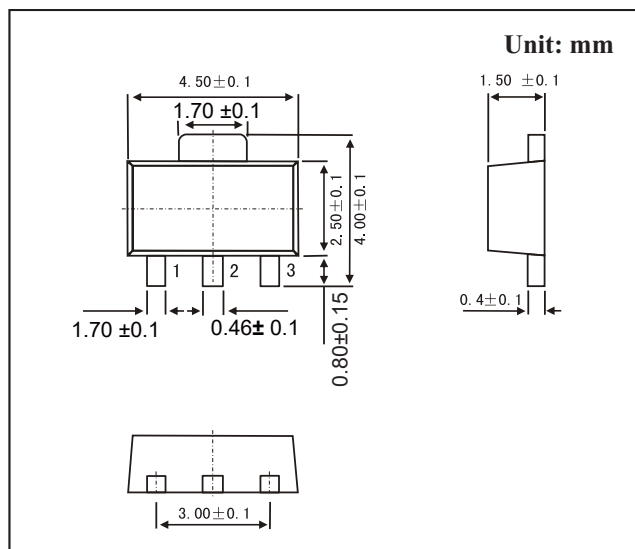
FEATURES

- Maximum output current IOM: 0.1A
- Output voltage VO: 6V
- Continuous total dissipation

$$P_D: 0.6 \text{ W} \quad (T_a = 25^\circ \text{C})$$

MECHANICAL DATA

- Case: SOT-89 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	166.7	°C/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

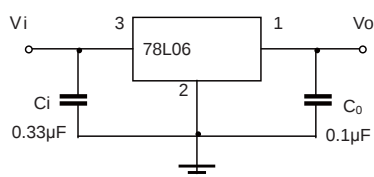
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i=11\text{V}$, $I_o=40\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	5.75	6.0	6.25	V
		8V ≤ V_i ≤ 20V, $I_o=1\text{mA}-40\text{mA}$	5.7	6.0	6.3	V
		$I_o=1\text{mA}-70\text{mA}$	5.7	6.0	6.3	V
Load Regulation	ΔV_o	$I_o=1\text{mA}-100\text{mA}$		16	80	mV
		$I_o=1\text{mA}-40\text{mA}$		9	40	mV
Line regulation	ΔV_o	8V ≤ V_i ≤ 20V		35	175	mV
		9V ≤ V_i ≤ 20V		29	125	mV
Quiescent Current	I_q	25°C		3.9	6.0	mA
Quiescent Current Change	ΔI_q	9V ≤ V_i ≤ 20V			1.5	mA
	ΔI_q	1mA ≤ I_o ≤ 40mA			0.1	mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz		46		μV/ V_o
Ripple Rejection	RR	9V ≤ V_i ≤ 19V, f=120Hz	40	48		dB
Dropout Voltage	V_d	25°C		1.7		V

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

