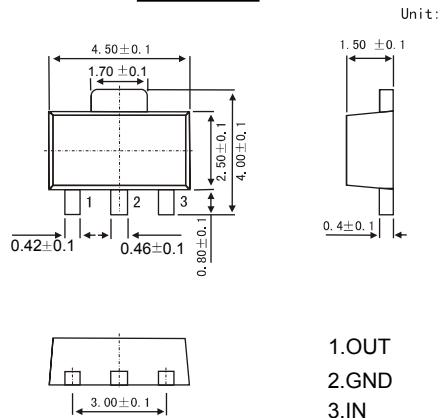


## Three-Terminal Positive Voltage Regulator

### SOT-89



### Features

- Maximum Output current  $I_o$ : 0.1A
- Output Voltage  $V_o$ : 6V
- Continuous Total Dissipation  $P_d$ : 0.5W ( $T_a = 25^\circ\text{C}$ )

### Application

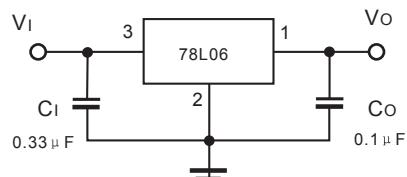
#### Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Rating	Unit
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	-55 ~ +125	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C

#### Electrical Characteristics ( $V_I=12\text{V}$ , $I_o=40\text{mA}$ , $C_I=0.33\text{\mu F}$ , $C_O=0.1\text{\mu F}$ , unless otherwise specified)

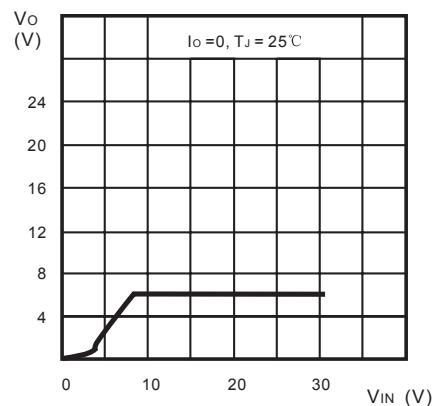
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$T_J = 25^\circ\text{C}$	5.75	6.0	6.25	V
		$T_J = 0 \sim 125^\circ\text{C}$ , $8\text{V} \leq V_I \leq 20\text{V}$ , $I_o=1\text{mA} \sim 40\text{mA}$	5.7	6.0	6.3	V
		$T_J = 0 \sim 125^\circ\text{C}$ , $I_o=1\text{mA} \sim 70\text{mA}$	5.7	6.0	6.3	V
Load Regulation	$\Delta V_o$	$T_J = 25^\circ\text{C}$ , $I_o=1\text{mA} \sim 100\text{mA}$		16	80	mV
		$T_J = 25^\circ\text{C}$ , $I_o=1\text{mA} \sim 40\text{mA}$		9	40	mV
Line Regulation	$\Delta V_o$	$T_J = 25^\circ\text{C}$ , $8\text{V} \leq V_I \leq 20\text{V}$		35	175	mV
		$T_J = 25^\circ\text{C}$ , $9\text{V} \leq V_I \leq 20\text{V}$		29	125	mV
Quiescent Current	$I_Q$	$T_J = 25^\circ\text{C}$		3.9	6.0	mA
Quiescent current Change	$\Delta I_Q$	$T_J = 0 \sim 125^\circ\text{C}$ , $9\text{V} \leq V_I \leq 20\text{V}$		1.5		mA
		$T_J = 0 \sim 125^\circ\text{C}$ , $1\text{mA} \leq I_o \leq 40\text{mA}$			0.1	
Output Noise Voltage	$V_N$	$T_J = 25^\circ\text{C}$ , $10\text{Hz} \leq f \leq 100\text{KHz}$		16		μV
Ripple Rejection	$RR$	$T_J = 0 \sim 125^\circ\text{C}$ , $9\text{V} \leq V_I \leq 19\text{V}$ , $f = 120\text{Hz}$	40	48		dB
Dropout Voltage	$V_D$	$T_J = 25^\circ\text{C}$			1.7	V

#### Typical Application

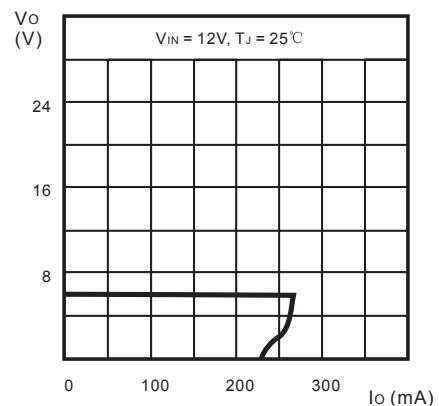


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

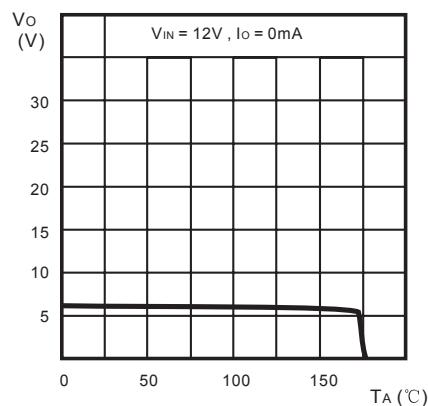
■ Typical Characteristics



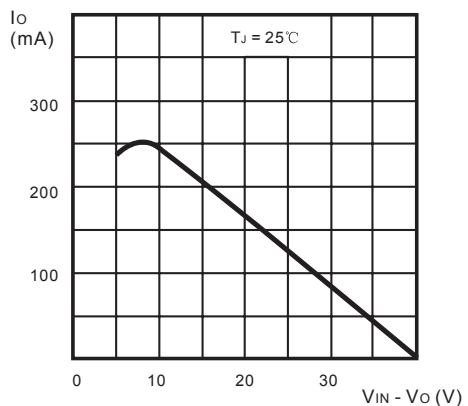
Output Characteristics



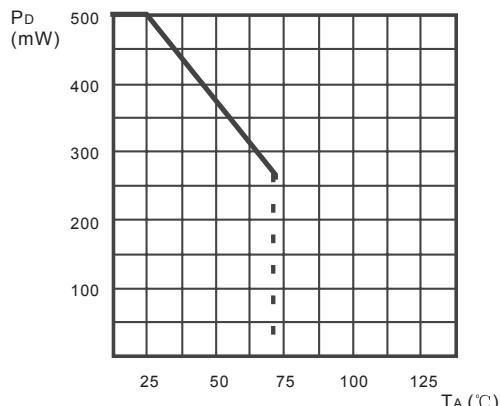
Load Characteristics



Thermal Shutdown



Short Circuit Output Current



Power Dissipation vs. Ambient Temperature

单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)