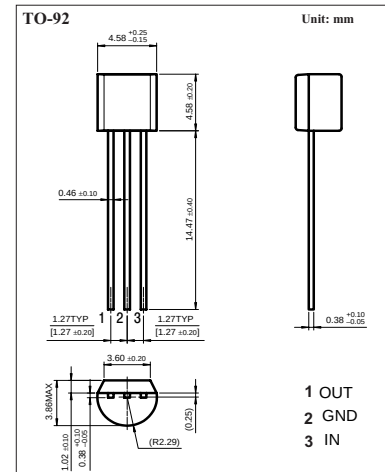


Three-Terminal Positive Voltage Regulator

78L06

■ Features

- Maximum output current: $I_{OM}=0.1A$.
- Output voltage: $V_O=6V$.
- Continuous total dissipation $P_D:0.625W(T_a=25^{\circ}C)$



■ Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit
Input Voltage	V_I	30	V
Operating junction temperature range	T_{OPR}	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

■ Electrical Characteristics ($V_I=12V, I_O=40mA, 0^{\circ}C < T_J < 125^{\circ}C, C_1=0.33 \mu F, C_O=0.1 \mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_O	$T_J=25^{\circ}C$	5.75	6.0	6.25	V
		$8V \leq V_I \leq 20V, I_O=1mA-40mA$	5.7	6.0	6.3	V
		$8.5V \leq V_I \leq V_{MAX}, I_O=1mA-70mA$	5.7	6.0	6.3	V
Load regulation	ΔV_O	$T_J=25^{\circ}C, I_O=1mA-100mA$		16	80	mV
		$T_J=25^{\circ}C, I_O=1mA-70mA$		9	40	mV
Line regulation	ΔV_O	$8V \leq V_I \leq 20V, T_J=25^{\circ}C$		35	175	mV
		$9V \leq V_I \leq 20V, T_J=25^{\circ}C$		29	125	mV
Quiescent current	I_q	$25^{\circ}C$		3.9	6.0	mA
Quiescent current change	ΔI_q	$9V \leq V_I \leq 20V$			1.5	mA
	ΔI_q	$1mA \leq I_O \leq 40mA$			0.1	mA
Output noise voltage	V_N	$10Hz \leq f \leq 100KHz$		46		μV
Ripple rejection	RR	$9V \leq V_I \leq 19V, f=120Hz, T_J=25^{\circ}C$	40	48		dB
Dropout voltage	V_d	$T_J=25^{\circ}C$		1.7		V

■ Typical application.

