

### WEJ78L06 Three-terminal positive voltage regulator

#### FEATURES

Maximum Output current

$I_{OM}$ : 0.1 A

Output voltage

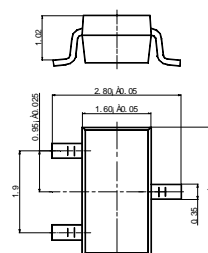
$V_O$ : 6 V

Operating and storage junction temperature range

$T_J, T_{STG}$ : -55°C to +150°C

#### SOT-23-3L

1. OUT
2. IN
3. GND



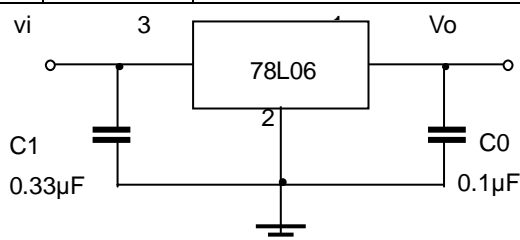
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°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
		$8V \leq V_I \leq 20V, I_O=1mA \sim 40mA$	5.7	6.0	6.3	V
		$8.5V \leq V_I \leq V_{MAX}, I_O=1mA \sim 70mA$	5.7	6.0	6.3	V (note)
Load Regulation	$\Delta V_O$	$T_J=25^\circ C, I_O=1mA \sim 100mA$		16	80	mV
		$T_J=25^\circ C, I_O=1mA \sim 70mA$		9	40	mV
Line regulation	$\Delta V_O$	$8V \leq V_I \leq 20V, T_J=25^\circ C$		35	175	mV
		$9V \leq V_I \leq 20V, T_J=25^\circ C$		29	125	mV
Quiescent Current	$I_q$			3.9	6.0	mA
Quiescent Current Change	$\Delta I_q$	$9V \leq V_I \leq 20V$			1.5	mA
	$\Delta I_q$	$1mA \leq V_I \leq 40mA$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		46		uV
Ripple Rejection	RR	$8V \leq V_I \leq 19V, f=120HZ, T_J=25^\circ C$	40	48		dB
Dropout Voltage	$V_d$	$T_J=25^\circ C$		1.7		V

#### TYPICAL APPLICATION



Note 1: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the regulators.