

FEATURES

Maximum Output current I_O : 0.1 A

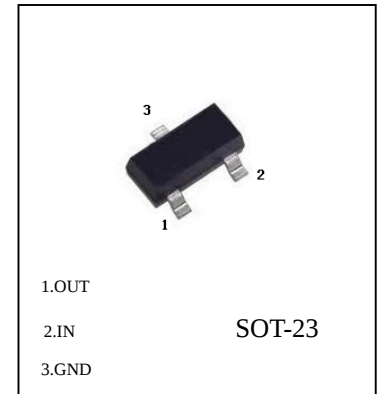
Output voltage V_O : 6 V

Continuous total dissipation P_D : 0.35 W ($T_a = 25^\circ\text{C}$)

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Junction Temperature Range	TOPR	0-125	$^\circ\text{C}$
Storage Temperature Range	TSTG	-65-150	$^\circ\text{C}$

78L06



ELECTRICAL CHARACTERISTICS ($V_i=10\text{V}$, $I_O=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	V_O		25°C	5.75	6.0	6.25	V
		$8\text{V} \leq V_I \leq 20\text{V}$, $I_O=1\text{mA}-40\text{mA}$	$0-125^\circ\text{C}$	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	$I_O=1\text{mA}-100\text{mA}$	25°C		16	80	mV
		$I_O=1\text{mA}-40\text{mA}$	25°C		9	40	mV
Line regulation	ΔV_O	$8\text{V} \leq V_I \leq 20\text{V}$	25°C		35	175	mV
		$9\text{V} \leq V_I \leq 20\text{V}$	25°C		29	125	mV
Quiescent Current	I_q		25°C		3.9	6.0	mA
Quiescent Current Change	ΔI_q	$9\text{V} \leq V_I \leq 20\text{V}$	$0-125^\circ\text{C}$			1.5	mA
	ΔI_q	$1\text{mA} \leq I_O \leq 40\text{mA}$	$0-125^\circ\text{C}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C		46		μV
Ripple Rejection	RR	$9\text{V} \leq V_I \leq 19\text{V}$, $f=120\text{Hz}$	$0-125^\circ\text{C}$	40	48		dB
Dropout Voltage	V_d		25°C		1.7		V

78L06 Typical Characteristics

