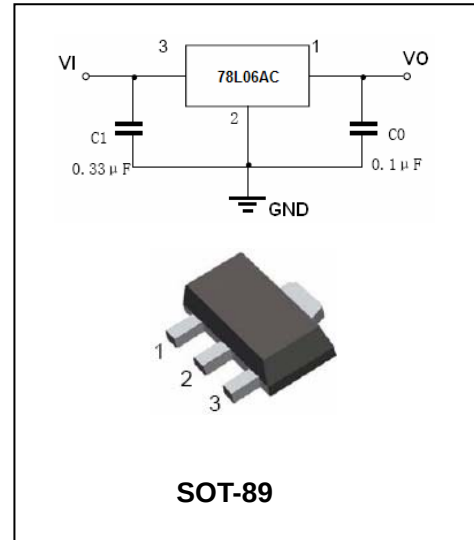


Three-Terminal Low Current Positive Voltage Regulators BL78L06AC

FEATURES

- Wide range of available, fixed output voltage.
- Low cost.
- Internal short-circuit current limiting.
- Internal thermal overload protection.
- No external components required.
- Complementary negative regulators offered BL79L06AC.



APPLICATIONS

- Three-terminal positive voltage regulator.

ORDERING INFORMATION

Type No.	Marking	Package Code
BL78L06AC	78L06	SOT-89

MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
V_I	Input voltage(2.6V-8.0V)	30	V
I_{CM}	Maximum output current	100	mA
P_D	Power dissipation	500	mW
T_{OPR}	Operating junction temperature	-40 to +80	°C
T_j, T_{stg}	Storage temperature range	-65 to +150	°C

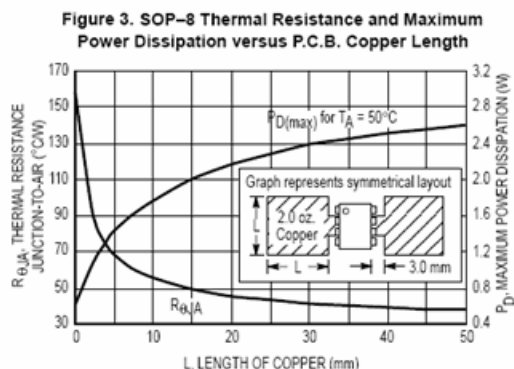
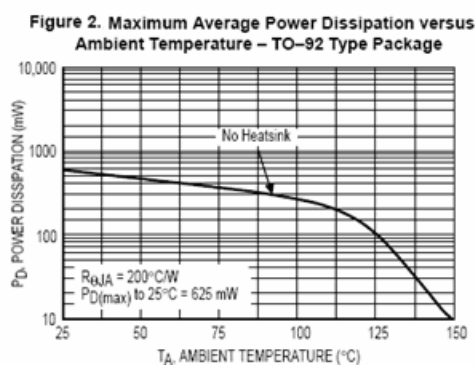
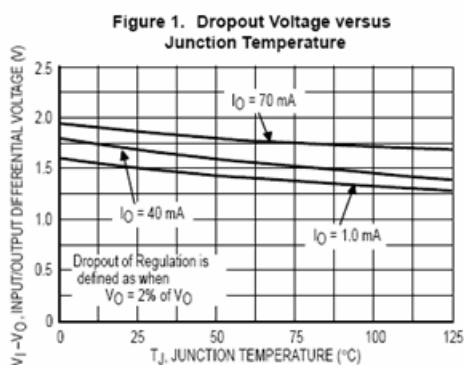
Three-Terminal Low Current Positive Voltage Regulators BL78L06AC

ELECTRICAL CHARACTERISTICS

($V_{IN}=12V, I_O=40mA, 0^\circ C < T_J < 125^\circ C, C_I=0.33\mu F, C_O=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	BL78L06AC			UNIT
			MIN	TYP	MAX	
Output voltage	V_O	$T_J=25^\circ C$ $V_I=8.5V-20V, I_O=1mA-40mA$ $V_I=8.5V, I_O=1mA-70mA$	5.75 5.7 5.7	6.0	6.25 6.3 6.3	V
Load regulation	Reg_{load}	$T_J=25^\circ C, I_O=1mA-100mA$ $T_J=25^\circ C, I_O=1mA-70mA$		12.8 5.8	80 40	mV
Line regulation	Reg_{line}	$8.5V \leq V_I \leq 20V, T_J=25^\circ C$ $9V \leq V_I \leq 20V, T_J=25^\circ C$		64 54	175 125	mV
Input Bias Current	I_{IB}	$T_J=25^\circ C, V_{IN}=12V, I_O=40mA$ $T_J=125^\circ C, V_{IN}=12V, I_O=40mA$		3.9	5.5 6.0	mA
Input Bias Current Change	ΔI_{IB}	$9V \leq V_I \leq 20V$ $1mA \leq I_O \leq 40mA$			1.5 0.1	mA
Output noise voltage	V_N	$10Hz \leq f \leq 100KHz$		40		$\mu V/V_O$
Ripple rejection	RR	$I_O=40mA, 10V \leq V_I \leq 20V, f=120Hz,$ $T_J=25^\circ C$	40	46		dB
Dropout voltage	V_D	$T_J=25^\circ C$		1.7		V

TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

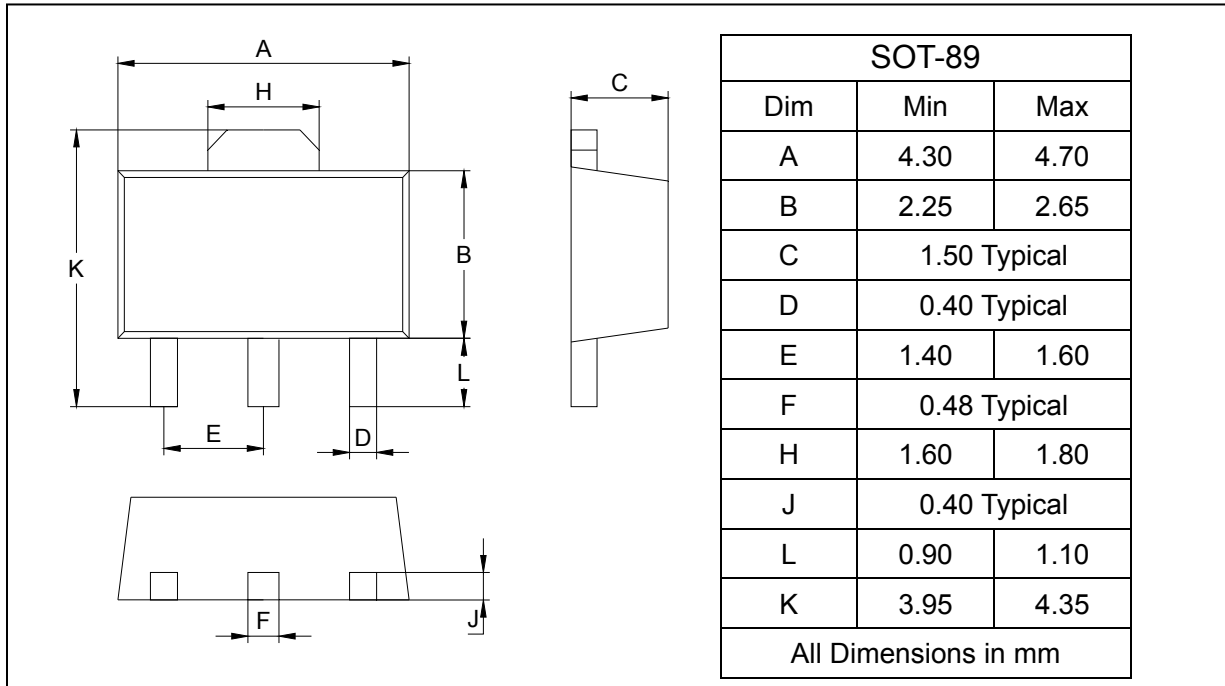


Three-Terminal Low Current Positive Voltage Regulators BL78L06AC

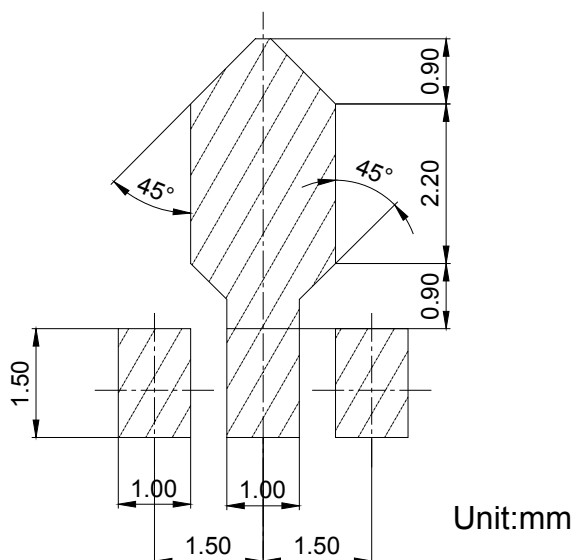
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BL78L06AC	SOT-89	1000/Tape&Reel