



**THE DATASHEET OF
MC78L06BP-AP**





MC78L06BP

Three-Terminal Low Current Positive Voltage Regulator

Features

- Halogen free available upon request by adding suffix "-HF"
- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

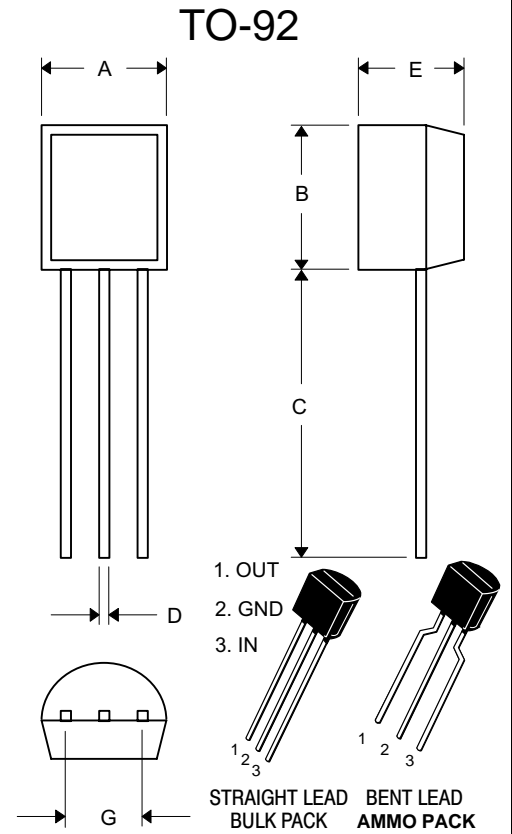
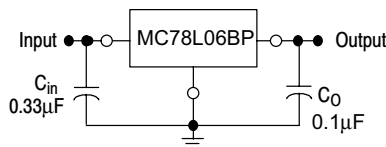
Parameter	Symbol	Value	Unit
Input Voltage	V_1	30	V
Operating Junction Temperature	T_{OPR}	-20---+120	°C
Storage Temperature Range	T_{STG}	-55---+150	°C

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	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	5.75V	6.0V	6.25V	$T_j=25^\circ C$
		5.7V		6.3V	$8.5V \leq V_1 \leq 20V, I_o=1mA-40mA$
		5.7V		6.3V	$8.5V \leq V_1 \leq V_{MAX}, I_o=1mA-70mA$ (Note)
Load Regulation	ΔV_o		12.8mV	80mV	$I_o=1mA-100mA, T_j=25^\circ C$
			5.8mV	40mV	$I_o=1mA-70mA, T_j=25^\circ C$
Line regulation	ΔV_o		64mV 54mV	175mV 125mV	$8.5V \leq V_1 \leq 20V, T_j=25^\circ C$ $9V \leq V_1 \leq 20V, T_j=25^\circ C$
Quiescent Current	I_q ΔI_q		3.9mA	6.0mA 1.5mA	$9V \leq V_1 \leq 20V$
				0.1mA	$1mA \leq I_o \leq 40mA$
Output Noise Voltage	V_N		49uV		$10Hz \leq f \leq 100KHz$
Ripple Rejection	RR	41dB	46dB		$8V \leq V_1 \leq 20V, f=120Hz, T_j=25^\circ C$
Dropout Voltage	V_d		1.7V		$T_j=25^\circ C$

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

Typical Application:



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	

* For ammo packing detailed specification, click here to visit our website of product packaging for details.



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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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