

**Micro Commercial Components** 

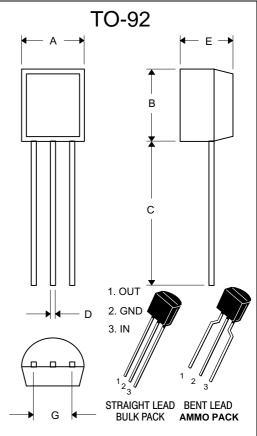


Micro Commercial Components 20736 Marilla Street Chatsworth CA91311

Phone: (818)-701-4933 Fax: (818)-701-4939

## MC78L06BP

# **Three-Terminal Low Current Positive Voltage Regulator**



DIMENSIONS						
	INCHES		N			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.175	.185	4.45	4.70		
В	.175	.185	4.45	4.70		
С	.500		12.70			
D	.016	.020	0.41	0.63		
Е	.135	.145	3.43	3.68		
G	.095	.105	2.42	2.67	Straight Lead	
G	.173	.220	4.40	5.60	Bent Lead	

<sup>\*</sup> For ammo packing detailed specification, click here to visit our website of product packaging for details.

## 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
- Moisure 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 <sub>1</sub>	30	V
Operating Junction Temperature	T <sub>OPR</sub>	-20+120	$^{\circ}\!\mathbb{C}$
Storage Temperature Range	T <sub>STG</sub>	-55+150	$^{\circ}\!\mathbb{C}$

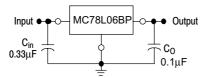
Electrical Characteristics(V<sub>i</sub>=12V<sub>i</sub> l<sub>0</sub>=40mA<sub>i</sub> 0 °C <Ti<125 °C<sub>i</sub>

C1=0 33uf. Ca=0.1uf. unless otherwise specified)

v 1–0.99ui , 0)–0. iui , uiii635 viii6i wi36 3µ66iii6u)						
Parameter	Sym	Min	Тур	Max	Test conditions	
	V <sub>0</sub>	5.75V	6.0V	6.25V	T <sub>j</sub> =25°C	
Output Voltage		5.7V		6.3V	$8.5V \le V_1 \le 20V$ , $I_0=1mA-40mA$	
		5.7V		6.3V	$8.5V \le V_1 \le V_{MAX}$ , $I_0=1mA-70mA$ (Note)	
Load	△V₀		12.8mV	80mV	I <sub>o</sub> =1mA-100mA, T <sub>j</sub> =25°C,	
Regulation			5.8mV	40mV	I <sub>o</sub> =1mA-70mA, T <sub>j</sub> =25°C,	
Line regulation	△V₀		64mV 54mV	175mV 125mV	$8.5V \le V_1 \le 20V$ , $T_j = 25^{\circ}C$ $9V \le V_1 \le 20V$ , $T_j = 25^{\circ}C$	
Quiescent Current	l <sub>q</sub> △l <sub>q</sub>		3.9mA	6.0mA 1.5mA	9V≦V <sub>1</sub> ≦20V	
Quiescent Current Change	$\triangle I_q$			0.1mA	1mA≦I₀≦40mA	
Output Noise Voltage	V <sub>N</sub>		49uV		10Hz≦f≦100KHz	
Ripple Rejection	RR	41dB	46dB		8V≦V₁≦20V f=120Hz, T <sub>j</sub> =25°C	
Dropout Voltage	V <sub>d</sub>		1.7V		T <sub>j</sub> =25°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:





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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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