

Features

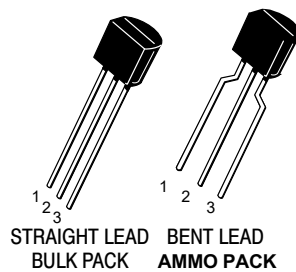
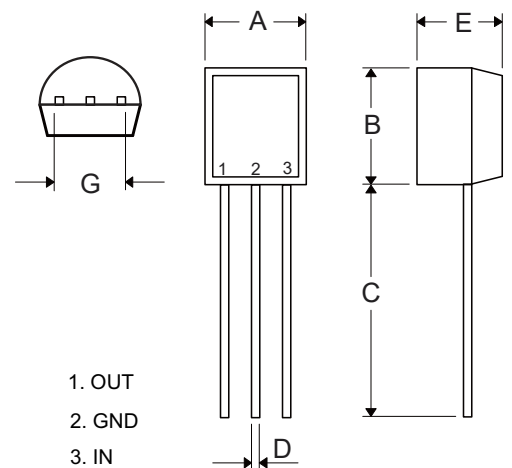
- Internal Thermal Overload Protection
- Internal Short Circuit Current Limiting
- No External Components Required
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

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

Three-Terminal Low Current Positive Voltage Regulators

TO-92



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

Electrical Characteristics

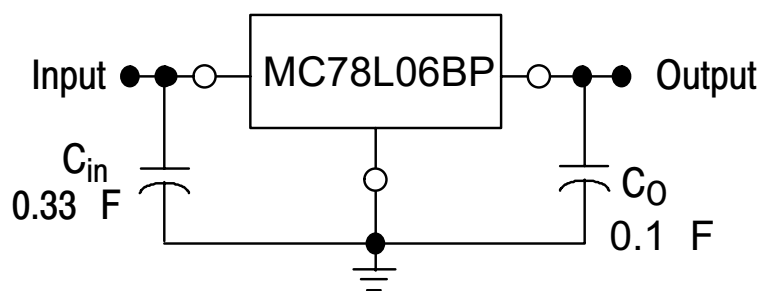
 ($V_i=12V$, $I_o=40mA$, $0^\circ C < T_j < 125^\circ C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, Unless Otherwise Specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^\circ C$	5.75	6.0	6.25	V
		$8.5V \leq V_1 \leq 20V$, $I_o=1mA-40mA$	5.7	-	6.3	V
		$8.5V \leq V_1 \leq V_{MAX}$ $I_o=1mA-70mA$ (Note 1)	5.7	-	6.3	V
Load Regulation	ΔV_o	$I_o=1mA-100mA$, $T_j=25^\circ C$	-	12.8	80	mV
		$I_o=1mA-70mA$, $T_j=25^\circ C$	-	5.8	40	mV
Line Regulation	ΔV_o	$8.5V \leq V_1 \leq 20V$, $T_j=25^\circ C$	-	64	175	mV
		$9.0V \leq V_1 \leq 20V$, $T_j=25^\circ C$	-	54	125	mV
Quiescent Current	I_q		-	3.9	6.0	mA
Quiescent Current Change	ΔI_q	$9V \leq V_1 \leq 20V$	-	-	1.5	mA
		$1mA \leq I_o \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	-	49	-	μV
Ripple Rejection	RR	$8V \leq V_1 \leq 20V$, $f=120Hz$, $T_j=25^\circ C$	41	46	-	dB
Dropout Voltage	V_d	$T_j=25^\circ C$	-	1.7	-	V

Note:

1. Bypass Capacitors are Recommended for Optimum Stability and Transient Response and should be Located as Close as Possible to The Regulators

Typical Application



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-BP-HF
 Adding "-HF" Suffix for Halogen Free, eg. Part Number-AP-HF

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