



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





MC78L08F

Features

- Maximum Output current $I_o:0.1A$
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- 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
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

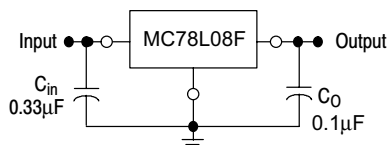
Parameter	Symbol	Value	Unit
Input Voltage	V_1	30	V
Operating Junction Temperature	T_{OPR}	-20---+120	°C
Storage Temperature Range	T_{STG}	-55---+150	°C

Electrical Characteristics ($V_i=14V, I_o=40mA, 0^\circ C < T_j < 125^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	7.7V	8.0V	8.3V	$T_j=25^\circ C$
		7.6V		8.4V	$10.5V \leq V_1 \leq 23V, I_o=1mA-40mA$
		7.6V		8.4V	$10.5V \leq V_1 \leq V_{MAX}, I_o=1mA-70mA$ (Note)
Load Regulation	ΔV_o		15mV	80mV	$I_o=1mA-100mA, T_j=25^\circ C,$
			8.0mV	40mV	$I_o=1mA-70mA, T_j=25^\circ C,$
Line regulation	ΔV_o		10mV 8.0mV	175mV 125mV	$10.5V \leq V_1 \leq 23V, T_j=25^\circ C$ $11V \leq V_1 \leq 23V, T_j=25^\circ C$
Quiescent Current	I_q ΔI_q		2.0mA	5.5mA	$11V \leq V_1 \leq 23V$
				1.5mA	
Quiescent Current Change	ΔI_q			0.1mA	$1mA \leq I_o \leq 40mA$
Output Noise Voltage	V_N		49uV		$10Hz \leq f \leq 100KHz$
Ripple Rejection	RR	39dB	70dB		$11V \leq V_1 \leq 23V, f=120Hz, T_j=25^\circ C$
Dropout Voltage	V_d		1.7V		$T_j=25^\circ C$

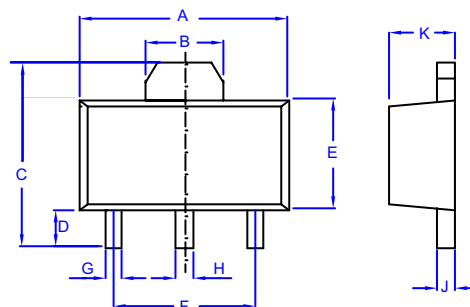
*Note: Bypass Capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators

Typical Application:



Three-Terminal Low Current Positive Voltage Regulator

SOT-89



1 2 3

1. OUT
2. GND
3. IN

DIM	DIMENSIONS				NOTES
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	-----	3.00	-----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	



Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 1 Kpcs/Reel

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

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