

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!



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Micro Commercial Components

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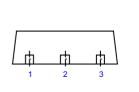
Phone:(818) 701-4933 Fax: (818) 701-4939

MC78L09F

Three-Terminal Low Current Positive

Voltage Regulator

SOT-89



1. OUT 2. GND

3. IN

DIMENSINS							
DIM	DIM INC		N	NOTES			
	MIN	MAX	MIN	MAX	1		
Α	.173	.181	4.39	4.60			
В	.063	.071	1.60	1.80			
С	.154	.165	3.91	4.25			
D	.031	.039	0.80	1.00			
Ε	.092	.100	2.34	2.54			
F	.118		3.00		TYP		
G	.013	.019	0.33	0.48			
Н	.015	.021	0.38	0.53			
J	.015	.016	0.38	0.41			
K	.055	.063	1.40	1.60			

Features

- Maximum Output current Io:0.1A
- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

9-					
Parameter	Symbol	Value	Unit		
Input Voltage	V ₁	30	V		
Operating Junction Temperature	T _{OPR}	-20+120	$^{\circ}\!\mathbb{C}$		
Storage Temperature Range	T _{STG}	-55+150	$^{\circ}\!\mathbb{C}$		

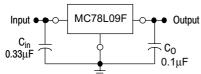
Electrical Characteristics(V_i=15V, l₀=40mA, 0°C <Tj<125°C,

C1=0.33uf. C₀=0.1uf. unless otherwise specified)

or Globar, Gu	011011,		110111100		
Parameter	Sym	Min	Тур	Max	Test conditions
	V ₀	8.64V	9.0V	9.36V	T _j =25°C
Output Voltage		8.55V		9.45V	$11.5V \le V_1 \le 24V$, $I_0=1mA-40mA$
		8.55V		9.45V	11.5V≦V ₁ ≦V _{MAX} , I₀=1mA-70mA (Note)
Load Regulation	△V₀		20mV	90mV	I _o =1mA-100mA, T _j =25°C,
			10mV	45mV	I _o =1mA-40mA, T _j =25°C,
Line regulation	$\triangle V_o$		90mV 100mV	200mV 150mV	$\begin{array}{l} 11.5V \! \leq \! V_1 \! \leq \! 24V, T_j \! = \! 25^{\circ}C \\ 13V \! \leq \! V_1 \! \leq \! 24V, T_j \! = \! 25^{\circ}C \end{array}$
Quiescent Current	l _q △l _q		2.0mA	6.0mA 1.5mA	13V≦V₁≦24V
Quiescent Current Change	$\triangle I_q$			0.1mA	1mA≦I₀≦40mA
Output Noise Voltage	V_N		49uV		10Hz≦f≦100KHz
Ripple Rejection	RR		38dB	44dB	12V≦V₁≦23V f=120Hz, T _j =25°C
Dropout Voltage	V_{d}		1.7V		T _j =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:





Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel1Kpcs/Reel

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