Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

MC78L12F

Three-Terminal Low Current Positive Voltage Regulator

Features

- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required

Maximum Ratings

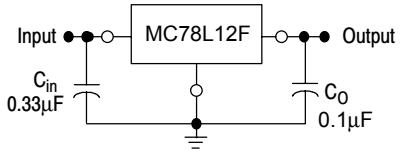
Parameter	Symbol	Value	Unit
Input Voltage	V_1	35	V
Operating Junction Temperature	T_{OPR}	-20---+120	℃
Storage Temperature Range	T_{STG}	-55---+150	℃

Electrical Characteristics(V_i=19V, I_o=500mA, 0 °C <Tj<125 °C, C1=0.33uF, C_o=0.1uF, unless otherwise specified)

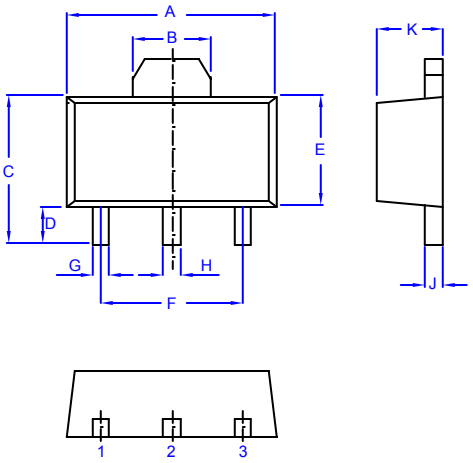
Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_0	11.5V	12V	12.5V	T_j=25°C
		11.4V		12.6V	14.5V≦V_1≦27V, I_o=1mA-40mA
		11.4V		12.6V	14.5V≦V_1≦V_{MAX}, I_o=1mA-70mA (Note)
Load Regulation	$\triangle V_o$		25mV	150mV	I_o=1mA-100mA, T_j=25°C,
			12mV	75mV	I_o=1mA-40mA, T_j=25°C,
Line regulation	$\triangle V_o$		25mV 20mV	300mV 250mV	14.5V≦V_1≦27V, T_j=25°C 16V≦V_1≦27V, T_j=25°C
Quiescent Current	I_q $\triangle I_q$		2.0mA	6.0mA 1.5mA	16V≦V_1≦27V
Quiescent Current Change	$\triangle I_q$			0.1mA	1mA≦I_o≦40mA
Output Noise Voltage	V_N		80uV		10Hz≦f≦100KHz
Ripple Rejection	RR		37dB	65dB	15V≦V_1≦25V 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:



SOT-89



1. OUT
2. GND
3. IN

DIM	INCHES		MM		NOTES
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.19	
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	