Elektronische Bauelemente

SM79L09

3-Terminal

Negative Voltage Regulator

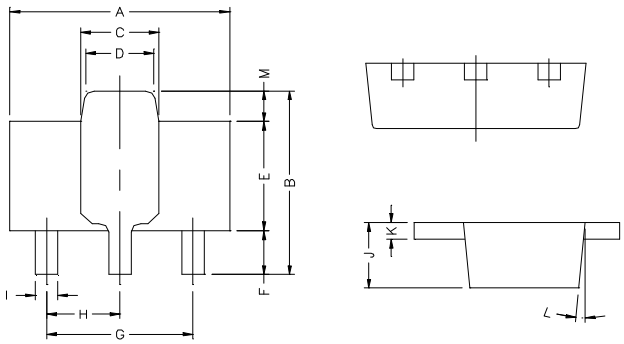
Description

The SM79L09 is monolithic fixed voltage regulator integrated circuit. They are suitable for applications that required supply current up to 100mA.

Features

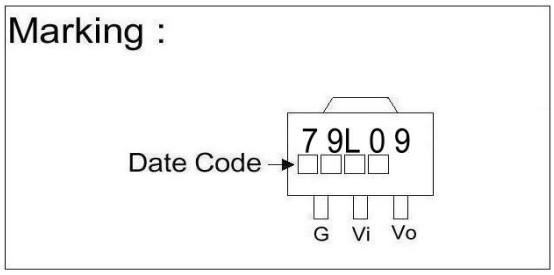
* Short Circuit Current Limiting
* Output Current Up To 100mA
* Thermal Overload Shutdown Protection

SOT-89



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00 REF.	
B	4.05	4.25	H	1.50 REF.	
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5° TYP.	
			M	0.70 REF.	

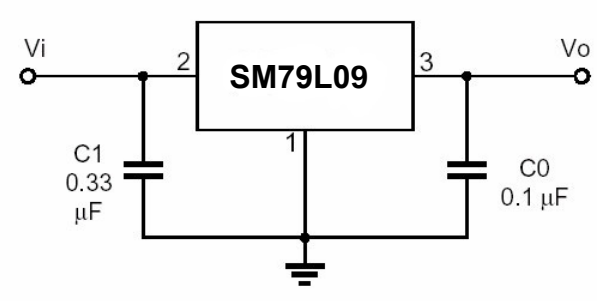
Marking :



Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Input Voltage	V_{IN}	-30	V
Output Current	I_O	100	mA
Operating Junction Temperature Range	Tj	0~+125	°C
Storage Temperature Range	Tstg	-55~+150	°C
Total Power Dissipation	P_D	350	mW

Application Circuit



Electrical Characteristics at Ta=25℃

Rank A (3%) V_I=-15V,I_O=40mA,Tj=25℃, C_{IN}=0.33uF, C_{OUT}=0.1uF unless otherwise specified

Symbol	Min.	Typ.	Max.	Unit	Test Condition
V_O	-8.73	-9	-9.27	V	V_{IN}=-15V,I_O=40mA
$\triangle V_O$-V_{IN} (Line Regulation)	–	27	200	mV	V_{IN}=-12.5V~-24V,I_O=40mA
$\triangle V_O$-I_O (Load Regulation)	–	12	90	mV	V_{IN}=-15V,I_O=1~100mA
I_Q Quiescent Current	–	3.5	6	mA	V_{IN}=-15V,I_O=40mA
V_{NO} Output Noise Voltage	–	210	–	uV	V_{IN}=-15V,BW=10Hz~100KHz,I_O=40mA
RR Ripple Rejection	37	64	–	dB	V_{IN}=-12V~-22V,I_O=40mA,E_{IN}=1V_{P-P},f=150Hz

Rank B (5%) V_I=-15V,I_O=40mA,Tj=25℃, C_{IN}=0.33uF, C_{OUT}=0.1uF unless otherwise specified

Symbol	Min.	Typ.	Max.	Unit	Test Condition
V_O	-8.55	-9	-9.45	V	V_{IN}=-15V,I_O=40mA
$\triangle V_O$-V_{IN} (Line Regulation)	–	27	200	mV	V_{IN}=-12.5V~-24V,I_O=40mA
$\triangle V_O$-I_O (Load Regulation)	–	12	90	mV	V_{IN}=-15V,I_O=1~100mA
I_Q Quiescent Current	–	3.5	6	mA	V_{IN}=-15V,I_O=40mA
V_{NO} Output Noise Voltage	–	210	–	uV	V_{IN}=-15V,BW=10Hz~100KHz,I_O=40mA
RR Ripple Rejection	37	64	–	dB	V_{IN}=-12V~-22V,I_O=40mA,E_{IN}=1V_{P-P},f=150Hz