

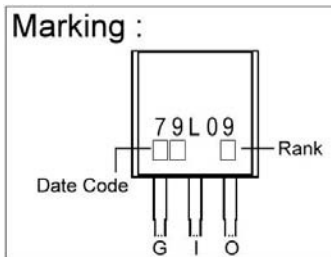
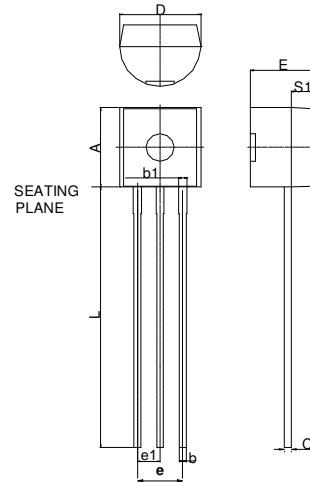
**Description**

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

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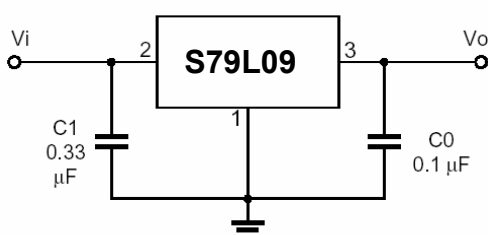


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

**Absolute Maximum Ratings**

Parameter	Symbol	Ratings	Unit
Input Voltage	$V_{IN}$	-30	V
Output Current	$I_o$	100	mA
Operating Junction Temperature Range	$T_j$	0~+125	°C
Storage Temperature Range	$T_{stg}$	-55~+150	°C
Total Power Dissipation	$P_D$	625	mW

**Application Circuit**



**Electrical Characteristics at Ta=25°C**

**Rank A (3%)**  $V_i=-15V, I_o=40mA, T_j=25^\circ C, C_{IN}=0.33\mu F, C_{OUT}=0.1\mu F$  unless otherwise specified

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

**Rank B (5%)**  $V_i=-15V, I_o=40mA, T_j=25^\circ C, C_{IN}=0.33\mu F, C_{OUT}=0.1\mu F$  unless otherwise specified

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