78L09

Three-terminalpositive voltage regulator

FEATURES

Maximum output current

I_{OM}: 0.1 A

Output voltage

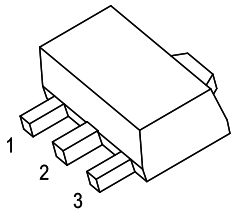
V_o: 9 V

Continuous total dissipation

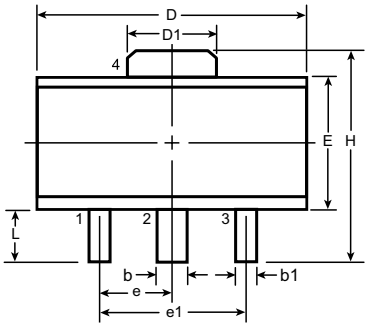
P_D: 0.5W

SOT-89-3L

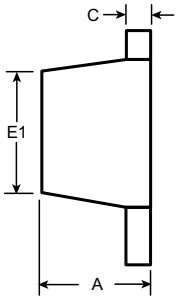
1. OUT
2. GND
3. IN



SOT-89 PACKAGE OUTLINE



Top View



Side View

Symbol		A	b	b1	C	D	D1	E	E1	e	e1	H	L
Dimensions (mm)	MIN	1.40	0.44	0.36	0.3	4.40	1.50	2.29	2.00[f]	1.50 BSC	3.00 BSC	3.94	0.89
	NOM	-	-	-	-	-	-	-	-			-	-
	MAX	1.60	0.56	0.48	0.5	4.60	1.75	2.60	2.29			4.25	1.20

Dimensions in mm

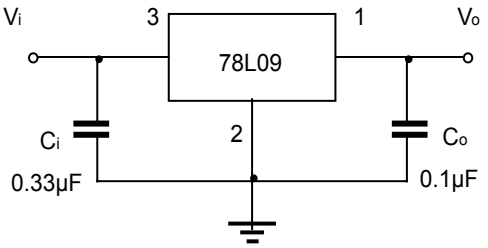
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE (Vi=16V,Io=40mA,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

Pa rameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25℃	8.64	9.0	9.36	V
		12V≤V_I≤24V, Io=1mA-40mA	0-125℃	8.55	9.0	9.45	V
		Io=1mA-70mA		8.55	9.0	9.45	V
Load Regulation	△Vo	Io=1mA-100mA	25℃		19	90	mV
		Io=1mA-40mA	25℃		11	40	mV
Line regulation	△Vo	12V≤V_I≤24V	25℃		45	175	mV
		13V≤V_I≤24V	25℃		40	125	mV
Quiescent Current	Iq		25℃		4.1	6.0	mA
Quiescent Current Change	△Iq	13V≤V_I≤24V	0-125℃			1.5	mA
	△Iq	1mA≤I_O≤40mA	0-125℃			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		58		uV
Ripple Rejection	RR	15V≤V_I≤25V,f=120Hz	0-125℃		45		dB
Dropout Voltage	Vd		25℃		1.7		V

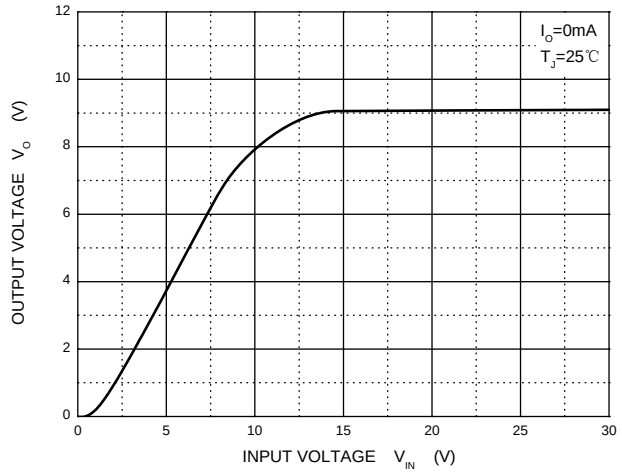
TYPICA L APPLICATION



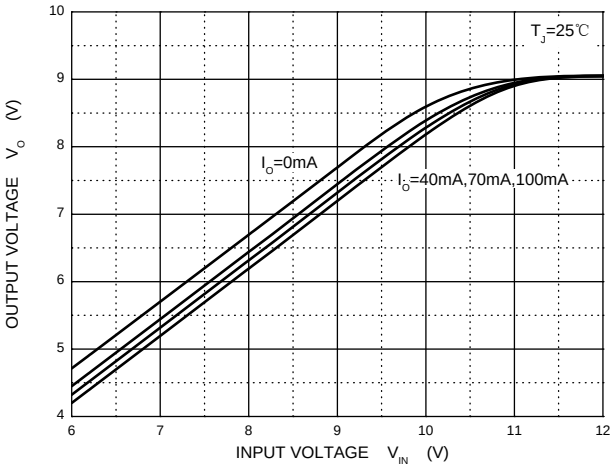
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

RATING AND CHARACTERISTIC CURVES (78L09)

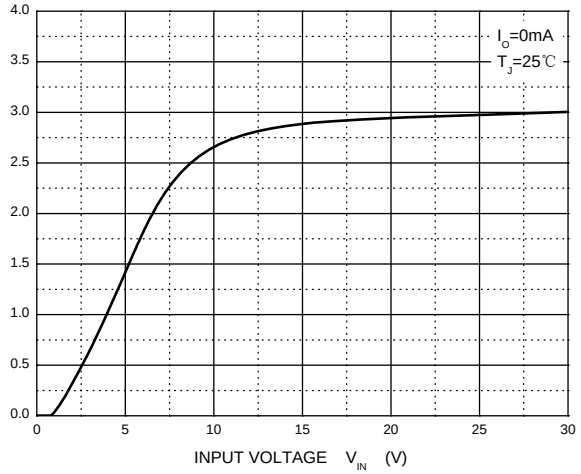
Output Characteristics



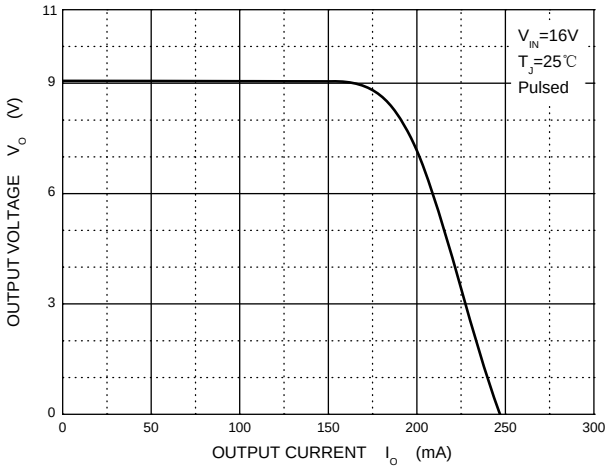
Dropout Characteristics



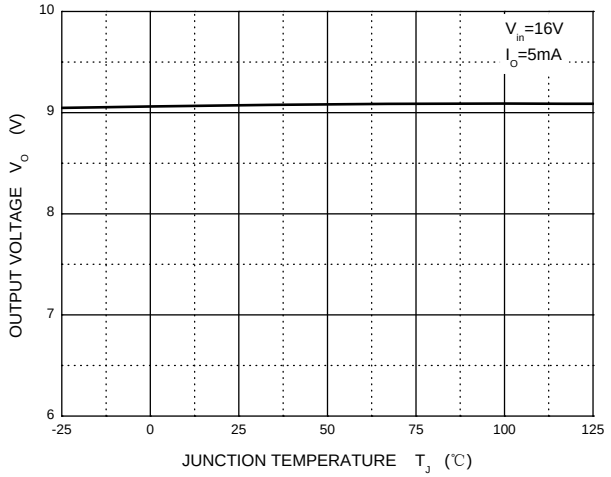
Quiescent Current vs Input Voltage



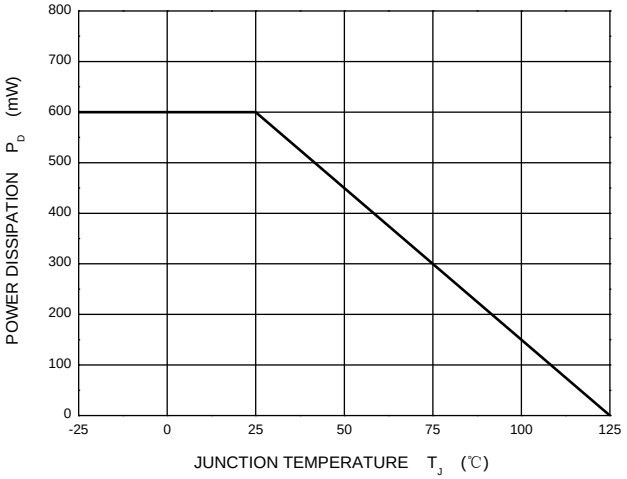
Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Linear Voltage Regulators ***category:***

Click to view products by GOODWORK ***manufacturer:***

Other Similar products are found below :

LV56831P-E LV5684PVD-XH MCDTSA6-2R L7815ACV-DG PQ3DZ53U LV56801P-E TLE42794G L78L05CZ/1SX L78LR05DL-MA-E 636416C 714954EB BA033LBSG2-TR LV5680P-E L78M15CV-DG L79M05T-E TLS202A1MBVHTSA1 L78LR05D-MA-E NCV317MBTG NTE7227 LV5680NPVC-XH LT1054CN8 MP2018GZD-5-Z MP2018GZD-33-Z MIC5281-3.3YMM MC78L06BP-AP TA48LS05F(TE85L,F) TA78L12F(TE12L,F) TC47BR5003ECT TCR2LN12,LF(S TCR2LN28,LF(S TCR2LN30,LF(S TCR3DF295,LM(CT TCR3DF40,LM(CT BA178M20CP-E2 L78M12ABDT LM7812SX/NOPB LR645N3-G-P003 LR645N3-G-P013 ZXTR2005P5-13 SCD7812BTG TCR3DF335,LM(CT ZXTR2012K-13 TLE42994E V33 ZXTR2008K-13 ZXTR2005K-13 L88R05DL-E ADP3300ARTZ-2.7RL7 LM120K-15/883 IFX54441LDVXUMA1 LM317D2T-TR