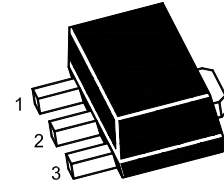


78L09U

3-Terminal Positive Voltage Regulator



1.OUT 2.GND 3.IN
SOT-89 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

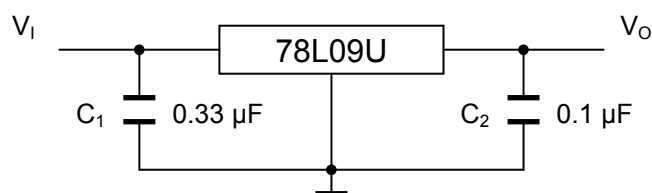
Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Power Dissipation	P_{tot}	800 ¹⁾	mW
Operating Temperature	T_{opr}	- 20 to + 120	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ 15 mm X 25 mm X 0.7 mm alumina ceramic board, $T_a \leq 25\text{ }^\circ\text{C}$

Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

(Unless otherwise specified, $0\text{ }^\circ\text{C} \leq T_J \leq 125\text{ }^\circ\text{C}$, $V_I = 15\text{ V}$, $I_O = 40\text{ mA}$, $C_1 = 0.33\text{ }\mu\text{F}$, $C_O = 0.1\text{ }\mu\text{F}$)

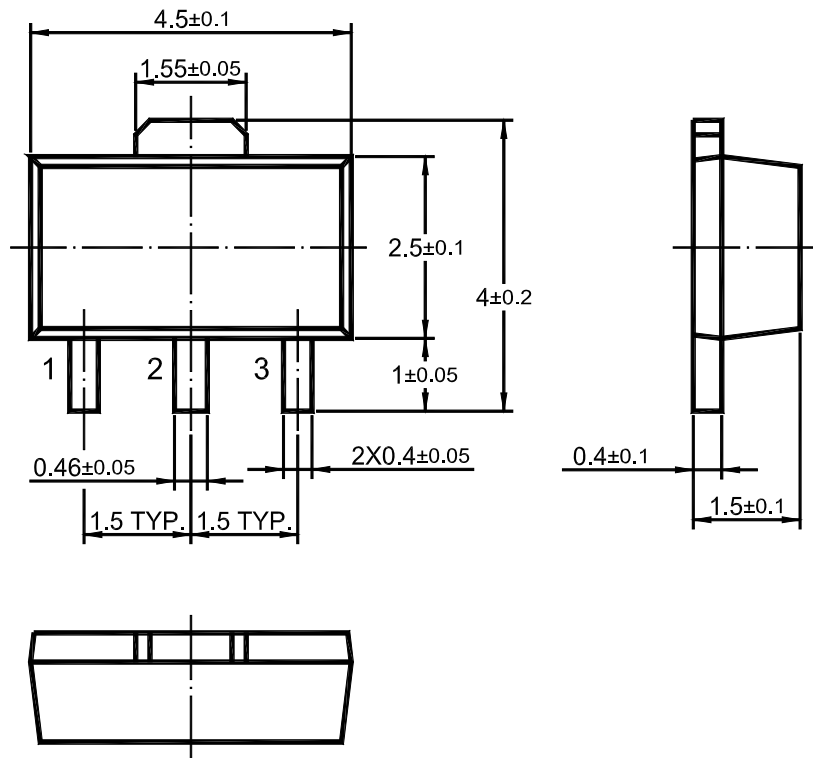
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage	V_O	$T_j = 25\text{ }^\circ\text{C}$	8.64	9	9.36	V
		$11.4\text{ V} \leq V_I \leq 24\text{ V}$, $1\text{ mA} \leq I_O \leq 40\text{ mA}$	8.55	-	9.45	V
		$V_I = 15\text{ V}$, $1\text{ mA} \leq I_O \leq 70\text{ mA}$	8.55	-	9.45	V
Line Regulation	Regline	$11.4\text{ V} \leq V_I \leq 24\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$	-	-	200	mV
		$12\text{ V} \leq V_I \leq 24\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$	-	-	160	
Load Regulation	Regload	$1\text{ mA} \leq I_O \leq 100\text{ mA}$, $T_j = 25\text{ }^\circ\text{C}$	-	-	90	mV
		$1\text{ mA} \leq I_O \leq 40\text{ mA}$, $T_j = 25\text{ }^\circ\text{C}$	-	-	45	
Quiescent Current	I_Q	$T_j = 25\text{ }^\circ\text{C}$	-	-	6	mA
Quiescent Current Change	ΔI_Q	$12\text{ V} \leq V_I \leq 24\text{ V}$, $I_O = 40\text{ mA}$	-	-	1.5	mA
		$V_I = 15\text{ V}$, $1\text{ mA} \leq I_O \leq 40\text{ mA}$	-	-	0.1	
Output Noise Voltage	V_N	$10\text{ Hz} \leq f \leq 100\text{ KHz}$, $T_j = 25\text{ }^\circ\text{C}$	-	70	-	μV
Ripple Rejection	RR	$f = 120\text{ Hz}$, $12\text{ V} \leq V_I \leq 24\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$	38	-	-	dB
Dropout Voltage	V_{Drop}	$T_j = 25\text{ }^\circ\text{C}$	-	1.7	-	V





78L09U

SOT-89 PACKAGE OUTLINE



Dimensions in mm

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 [Hong Kong Chuangji](#) 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](#) [ZMR500QFTA](#) [LV5680P-E](#) [L78M15CV-DG](#) [L79M05T-E](#) [TLS202A1MBVHTSA1](#) [L78LR05D-MA-E](#) [NCV317MBTG](#) [NTE7227](#) [MP2018GZD-33-P](#) [MP2018GZD-5-P](#) [LV5680NPVC-XH](#) [LT1054CN8](#) [MP2018GZD-5-Z](#) [MP2018GZD-33-Z](#) [AT55EL50ESE](#) [APL5934DKAI-TRG](#) [78L05U](#) [78L05](#) [CL9193A15L5M](#) [CL9036A30F4M](#) [CL9036A18F4M](#) [CL9036A25F4M](#) [CL9036A28F4M](#) [CL9036A33F4M](#) [CL9906A18F4N](#) [CL9906A30F4N](#) [CL9908A30F4M](#) [CL9908A33F4M](#) [CL9908A18F4M](#) [CL9908A28F4M](#) [TL431ACM/TR](#) [TL431AIM/TR](#) [LM78L05ACM/TR](#) [HT7812ARMZ](#) [HT7805ARMZ](#) [HT317LRHZ](#) [HXY6206I-3.0](#) [HXY6206I-3.3](#) [XC6206P252MR](#) [XC6206P282MR](#)