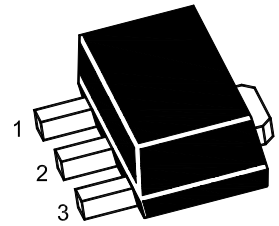




Features

- Input voltage: up to 30V
- Output voltage: 9V
- Output current up to 100 mA, internal thermal overload protection and short-circuit current limiting.

SOT-89



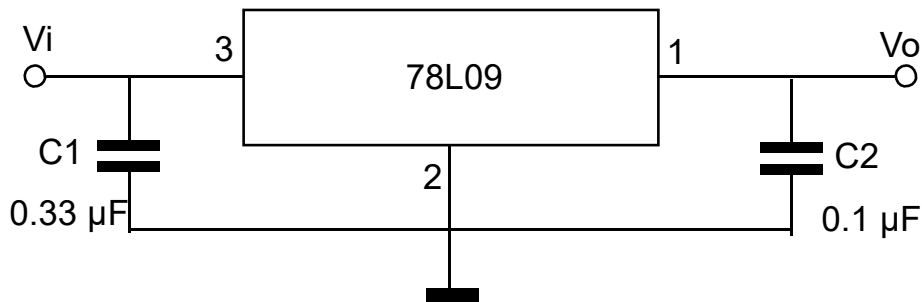
1. VOUT 2. GND 3. VIN

Marking Code : 78L09

Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Output Current	I_o	100	mA
Maximum Power Dissipation	P_D	500	mW
Junction Temperature	T_J	150	°C
Operating Temperature Range	T_{OPR}	-40 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C



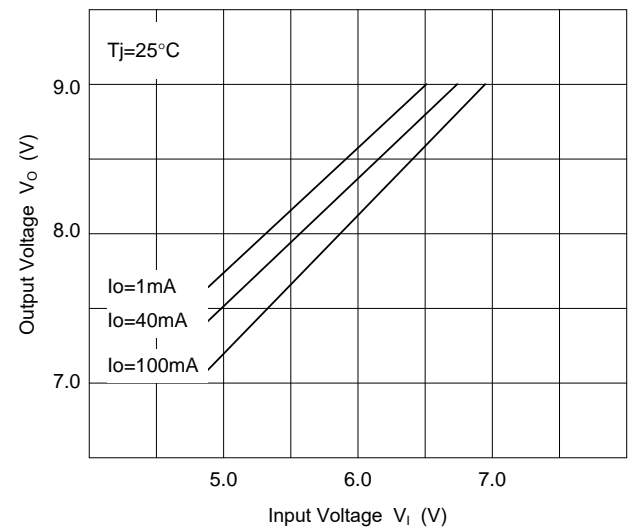
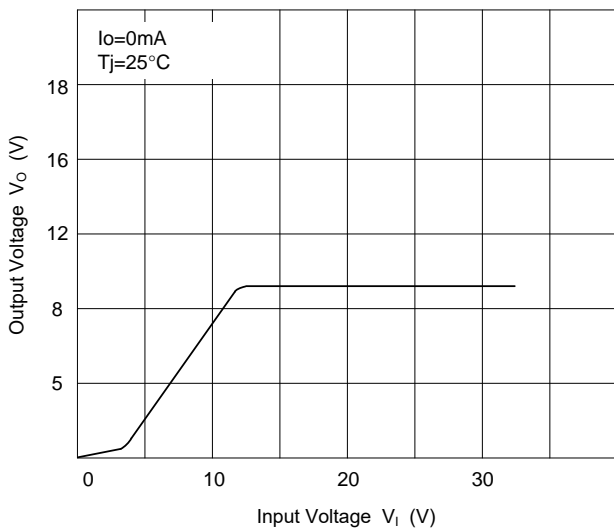
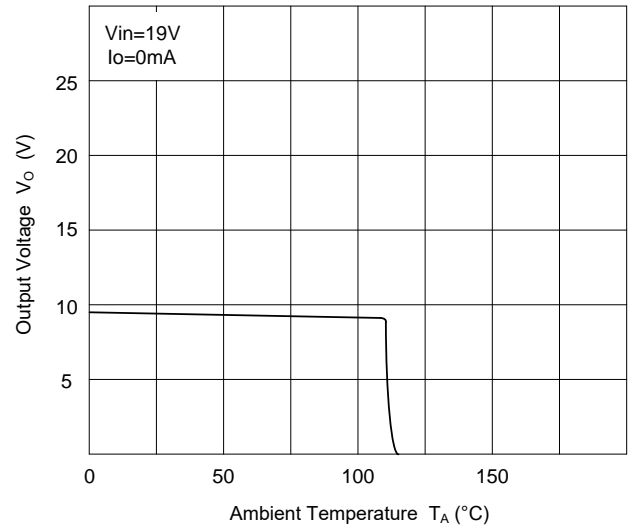
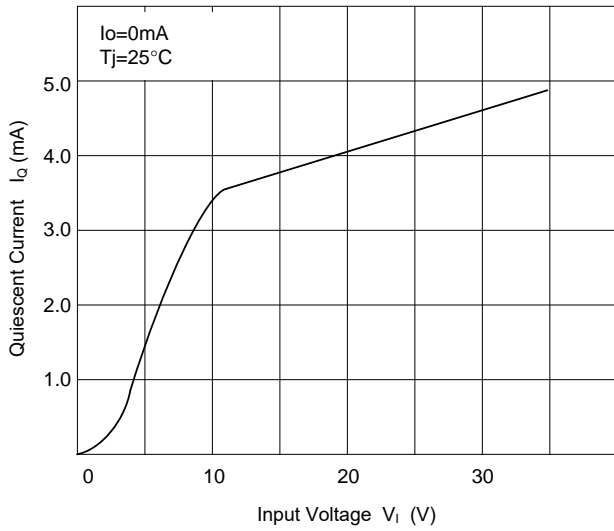
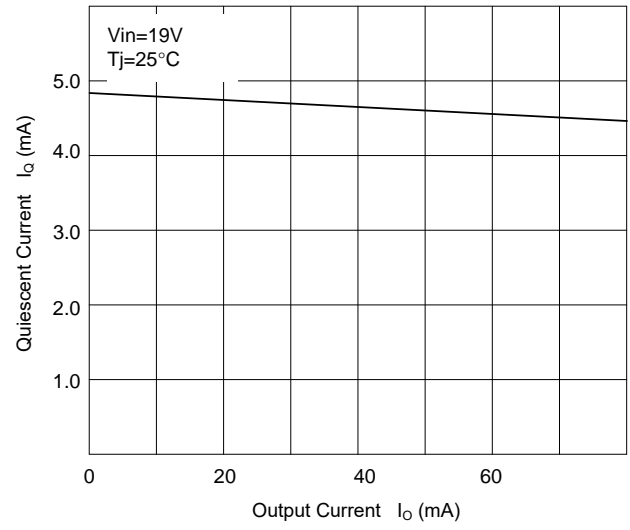
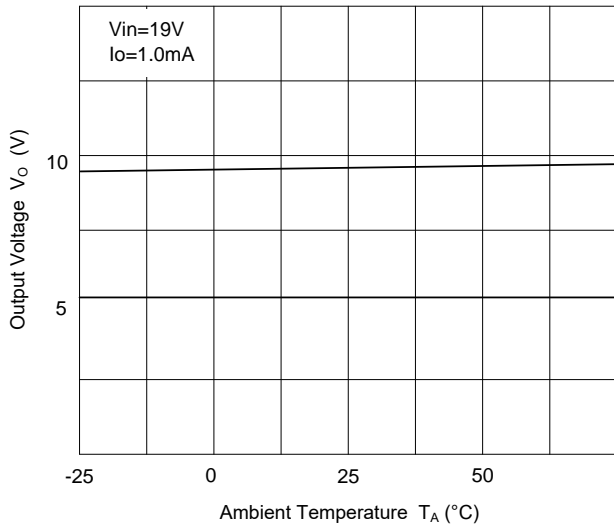
Electrical Characteristics

$V_i=15V$, $I_o=40mA$, $0^{\circ}C \leq T_J \leq 125^{\circ}C$, $C_i=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified.

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_o	$T_J=25^{\circ}C$	8.64	9	9.36	V
		$I_o=1mA$ to $40mA$, $V_i=11.5V$ to $24V$	8.55	9	9.45	V
		$I_o=1mA$ to $70mA$	8.55	9	9.45	V
Line Regulation	ΔV_o	$V_i=11.5V$ to $24V$, $T_J=25^{\circ}C$	--	--	200	mV
		$V_i=13V$ to $24V$, $T_J=25^{\circ}C$	--	--	150	mV
Load Regulation	ΔV_o	$I_o=1mA$ to $100mA$, $T_J=25^{\circ}C$	--	--	90	mV
		$I_o=1mA$ to $40mA$, $T_J=25^{\circ}C$	--	--	45	mV
Ripple Rejection	RR	$V_i=12V$ to $23V$, $f=120Hz$, $T_J=25^{\circ}C$	36	44	--	dB
Dropout Voltage	V_D	$T_J=25^{\circ}C$	--	1.7	--	V
Quiescent Current	I_q		--	--	5.5	mA
Quiescent Current Change	ΔI_q	$V_i=13V$ to $24V$	--	--	1.5	mA
		$I_o=1mA$ to $40mA$	--	--	0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	--	49	--	μV



Typical Characteristic Curves

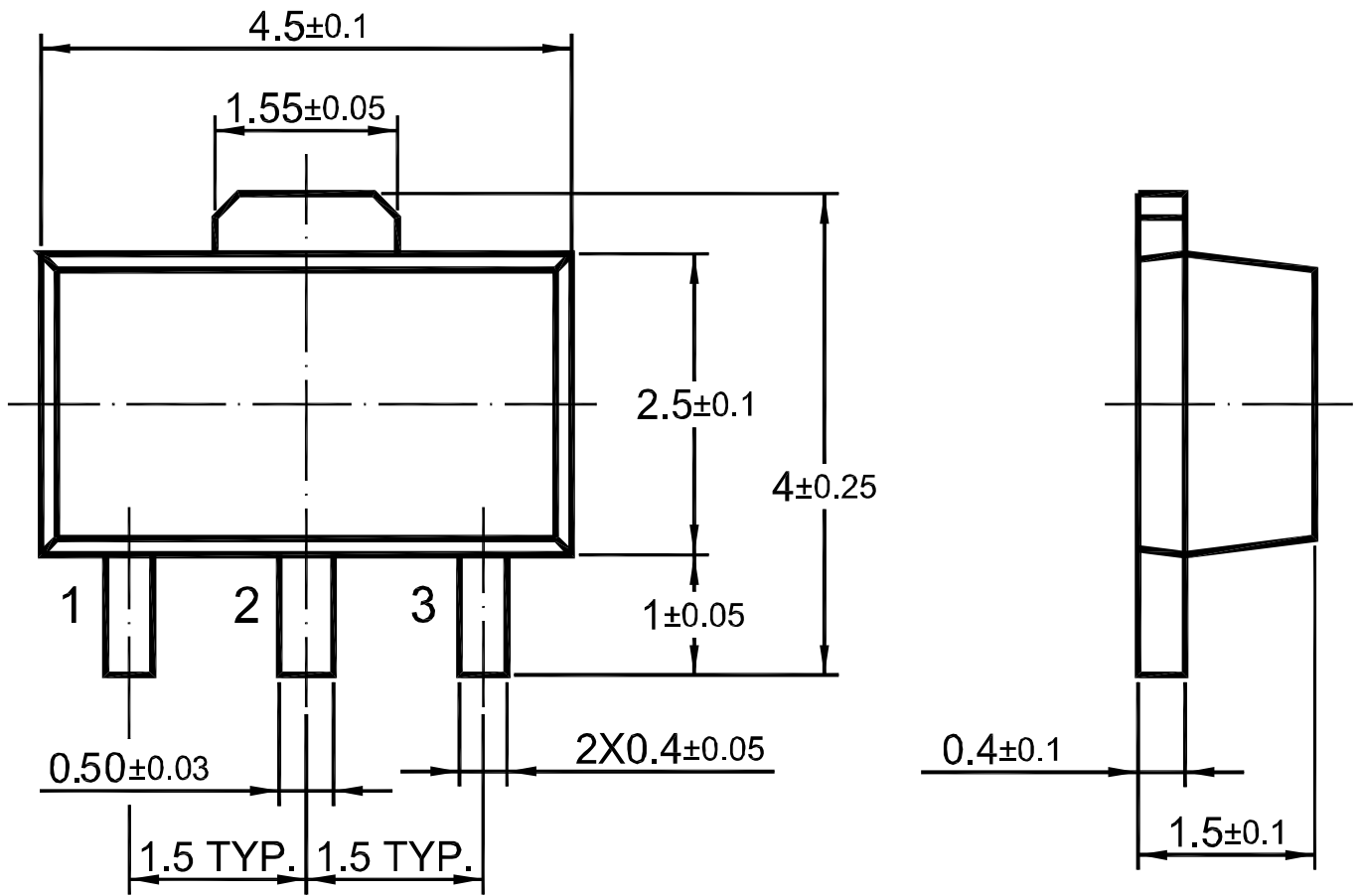




Package Outline

SOT-89

Dimensions in mm



Ordering Information

Device	Package	Shipping
78L09	SOT-89	1,000PCS/Reel&7inches
		3,000PCS/Reel&13inches

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 [DOWO](#) manufacturer:

Other Similar products are found below :

[LV5684PVD-XH](#) [MCDTSA6-2R](#) [L7815ACV-DG](#) [LV56801P-E](#) [UA7805CKC](#) [714954EB](#) [ZMR500QFTA](#) [BA033LBSG2-TR](#)
[NCV78M05ABDTRKG](#) [LV5680P-E](#) [L79M05T-E](#) [L78LR05D-MA-E](#) [NCV317MBTG](#) [NTE7227](#) [MP2018GZD-33-P](#) [MP2018GZD-5-P](#)
[LV5680NPVC-XH](#) [ZTS6538SE](#) [UA78L09CLP](#) [UA78L09CLPR](#) [CAT6221-PPTD-GT3](#) [MC78M09CDTRK](#) [NCV51190MNTAG](#)
[BL1118CS8TR1833](#) [BL8077CKETR33](#) [BL9153-33CC3TR](#) [BL9161G-28BADRN](#) [BRCO7530MMC](#) [CJ7815B-TFN-ARG](#) [LM317C](#)
[GM7333K](#) [GM7350K](#) [XC6206P332MR](#) [HT7533](#) [LM7912S/TR](#) [LT1764S/TR](#) [LM7805T](#) [LM338T](#) [LM1117IMP-3.3/TR](#) [HT1117AM-3.3](#)
[HT7550S](#) [AMS1117-3.3](#) [HT7150S](#) [78L12](#) [HT7550](#) [HT7533-1](#) [HXY6206I-2.5](#) [HT7133](#) [HT7533S](#) [662K](#)