

AT78L05SQ-N

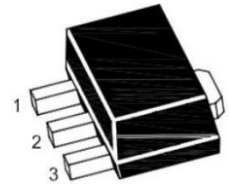
3-Terminal Voltage Regulator

FEATURES

- ◆ Input voltage: up to 35V
- ◆ Output: 5V
- ◆ Output current up to 100 mA, internal thermal overload protection and short-circuit limiting.

Marking: 78L05

SOT-89



1. OUT 2. GND 3. IN

MAXIMUM RATINGS

Ratings at $T_A = 25^\circ\text{C}$ ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Units
Input Voltage	V_I	35	V
Output Current	I_O	100	mA
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V_O	$V_i=10\text{V}, I_o=40\text{mA}$	4.85	5.0	5.15	V
		$I_o=1\text{mA to }40\text{mA}, V_i=7\text{V to }25\text{V}$	4.8	---	5.2	V
		$I_o=1\text{mA to }100\text{mA}$	4.75	---	5.25	V
Line Regulation	ΔV_O	$V_i=7\text{V to }25\text{V}, T_j=25^\circ\text{C}$	---	18	75	mV
		$V_i=8\text{V to }25\text{V}, T_j=25^\circ\text{C}$	---	10	54	mV
Load Regulation	ΔV_O	$I_o=1\text{mA to }100\text{mA}, T_j=25^\circ\text{C}$	---	20	60	mV
		$I_o=1\text{mA to }40\text{mA}, T_j=25^\circ\text{C}$	---	5	30	mV
Ripple Rejection	RR	$V_i=8\text{V to }16\text{V}, f=100\text{Hz}, T_j=25^\circ\text{C}$	47	62	---	dB
Quiescent Current	I_Q		---	3.75	6	mA
Quiescent Current Change	ΔI_Q	$V_i=8\text{V to }25\text{V}$	---	---	1.0	mA
		$I_o=1\text{mA to }40\text{mA}$	---	---	0.3	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}, T_j=25^\circ\text{C}$	---	40	---	μV

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PACKAGE OUTLINE

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