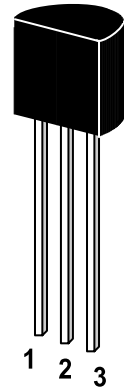


ST 78L12

3-Terminal positive voltage regulator

12V

- Suitable for TTL, DTL, HTL, C-MOS, Power Supply
- Internal Short-Circuit Current Limiting
- Internal Thermal Overload Protection
- Maximum Output Current of 150mA ($T_j=25^{\circ}\text{C}$)
- Available in the Plastic TO-92 Package

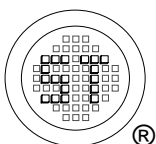


1. Output 2. Common 3. Input

TO-92 Plastic Package
Weight approx. 0.19g

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

	Symbol	Rating	Unit
Input Voltage	V_{IN}	35	V
Power Dissipation	P_{tot}	800	mW
Operating Temperature	T_{opr}	-30~75	$^{\circ}\text{C}$
Storage Temperature Range	T_s	-55~150	$^{\circ}\text{C}$



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116



ISO 9001:2000
Certificate No. 0506098

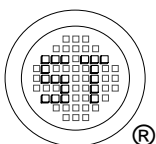
Dated : 07/12/2002

ST 78L12

Electrical Characteristics

(Unless otherwise specified, $V_{IN}=19V$, $I_{OUT}=40mA$, $C_{IN}=0.33\mu F$, $C_{OUT}=0.1\mu F$, $T_j=25^\circ C$)

	Symbol	Test Condition	Min.	Typ.	Max.	Unit	
Output Voltage	V_{OUT}		11.5	12	12.5	V	
Input Regulation	Reg. line	$14.5V \leq V_{IN} \leq 27V$	-	120	250	mV	
		$16V \leq V_{IN} \leq 27V$	-	100	200		
Load Regulation	Reg. load	$1.0mA \leq I_{OUT} \leq 100mA$	-	20	100	mV	
		$1.0mA \leq I_{OUT} \leq 40mA$	-	10	50		
Output Voltage	V_{OUT}	$14.5V \leq V_{IN} \leq 27V$ $1.0mA \leq I_{OUT} \leq 40mA$	11.4	-	12.6	V	
	V_{OUT}	$V_{IN}=19V$ $1.0mA \leq I_{OUT} \leq 70mA$	11.4	-	12.6	V	
Quiescent Current	I_B		-	3.2	6.5	mA	
Quiescent Current Change	With line	ΔI_B	$16V \leq V_{IN} \leq 27V$	-	-	1.5	mA
	With load			$1.0mA \leq I_{OUT} \leq 40mA$	-		
Output Noise Voltage	V_{NO}	$T_a=25^\circ C$, $10Hz \leq f \leq 100KHz$	-	80	-	μV	
Ripple Rejection	RR	$f=120Hz$, $15V \leq V_{IN} \leq 25V, T_j=25^\circ C$	36	41	-	dB	
Dropout Voltage	$ V_{IN}-V_{OUT} $	$T_j=25^\circ C$	-	1.7	-	V	
Average Temperature Coefficient of Output Voltage	TC_{VO}	$I_{OUT}=5mA$	-	1	-	$mV/^\circ C$	



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