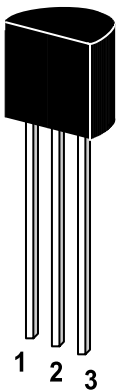


ST 78L18

3-Terminal positive voltage regulator

18V

- 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

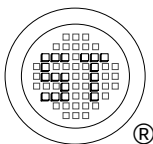


1. Output 2. Common 3. Input

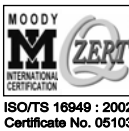
TO-92 Plastic Package
Weight approx. 0.19g

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

	Symbol	Rating	Unit
Input Voltage	V_{IN}	40	V
Power Dissipation	P_{tot}	800	mW
Operating Temperature	T_{opr}	-30~75	$^{\circ}\text{C}$
Storage Temperature Range	T_s	-55~150	$^{\circ}\text{C}$



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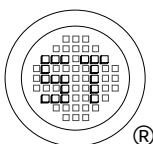
Dated : 06/08/2003

ST 78L18

Electrical Characteristics

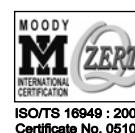
(Unless otherwise specified, $V_{IN}=27V$, $I_{OUT}=40mA$, $C_{IN}=0.33\mu F$, $C_{OUT}=0.1\mu F$, $T_J=25^\circ C$)

		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage		V _{OUT}		17.3	18	18.7	V
Input Regulation		Reg. line	21.4V≤V _{IN} ≤33V	-	32	325	mV
			22V≤V _{IN} ≤33V	-	27	275	
Load Regulation		Reg. load	1.0mA≤I _{OUT} ≤100mA	-	30	170	mV
			1.0mA≤I _{OUT} ≤40mA	-	15	75	
Output Voltage		V _{OUT}	21.4V≤V _{IN} ≤33V 1.0mA≤I _{OUT} ≤40mA	17.1	-	18.9	V
		V _{OUT}	V _{IN} =27V 1.0mA≤I _{OUT} ≤70mA	17.1	-	18.9	V
Quiescent Current		I _B		-	3.3	6.5	mA
Quiescent Current Change	With line	ΔI _B	22V≤V _{IN} ≤33V	-	-	1.5	mA
	With load		1.0mA≤I _{OUT} ≤40mA	-	-	0.1	
Output Noise Voltage		V _{NO}	Ta=25°C, 10Hz≤f≤100KHz	-	150	-	μV
Ripple Rejection		RR	f=120Hz, 23V≤V _{IN} ≤33V,T _j =25°C	32	38	-	dB
Dropout Voltage		V _{IN} -V _{OUT}	T _j =25°C	-	1.7	-	V
Average Temperature Coefficient of Output Voltage		TC _{VO}	I _{OUT} =5mA	-	-1.5	-	mV/°C



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