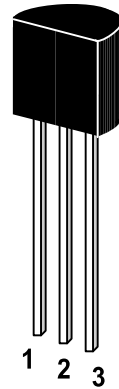


ST 78L18

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



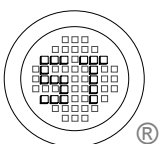
1. Output 2. Common 3. Input

TO-92 Plastic Package
Weight approx. 0.19g

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

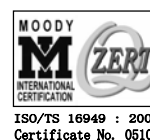
	Symbol	Rating	Unit
Input Voltage	V_{IN}	40	V
Power Dissipation	P_{tot}	800	mW
Operating Temperature	T_{opr}	-30~75	$^\circ\text{C}$
Storage Temperature Range	T_s	-55~150	$^\circ\text{C}$

G S P FORM A IS AVAILABLE



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Dated : 06/08/2003

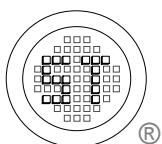
ST 78L18

Electrical Characteristics

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

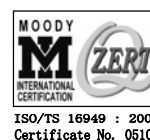
		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Voltage		V_{OUT}		17.3	18	18.7	V
Input Regulation	Reg. line		$21.4V \leq V_{IN} \leq 33V$	-	32	325	mV
			$22V \leq V_{IN} \leq 33V$	-	27	275	
Load Regulation	Reg. load		$1.0mA \leq I_{OUT} \leq 100mA$	-	30	170	mV
			$1.0mA \leq I_{OUT} \leq 40mA$	-	15	75	
Output Voltage	V_{OUT}		$21.4V \leq V_{IN} \leq 33V$ $1.0mA \leq I_{OUT} \leq 40mA$	17.1	-	18.9	V
	V_{OUT}		$V_{IN}=27V$ $1.0mA \leq I_{OUT} \leq 70mA$	17.1	-	18.9	V
Quiescent Current		I_B		-	3.3	6.5	mA
Quiescent Current Change	With line	ΔI_B	$22V \leq V_{IN} \leq 33V$ $1.0mA \leq I_{OUT} \leq 40mA$	-	-	1.5	mA
	With load			-	-	0.1	
Output Noise Voltage		V_{NO}	$T_a=25^\circ C$, $10Hz \leq f \leq 100KHz$	-	150	-	μV
Ripple Rejection		RR	$f=120Hz$, $23V \leq V_{IN} \leq 33V, T_j=25^\circ C$	32	38	-	dB
Dropout Voltage		$ V_{IN}-V_{OUT} $	$T_j=25^\circ C$	-	1.7	-	V
Average Temperature Coefficient of Output Voltage		TC_{VO}	$I_{OUT}=5mA$	-	-1.5	-	$mV/^\circ C$

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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 000-1999-01-002-001

Dated : 06/08/2003