



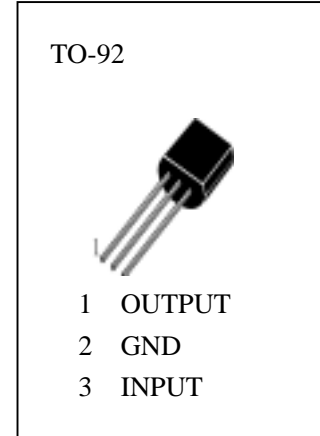
H78L18

Description

H78L18 is the three terminal positive Regulators with single chip, and in a wide range of applications. It supplies fixed output voltages of 1.8V, deliver over 100mA output current, and employs internal current limiting, thermal shut down and safe operating area protection, making it essentially indestructible.

Features

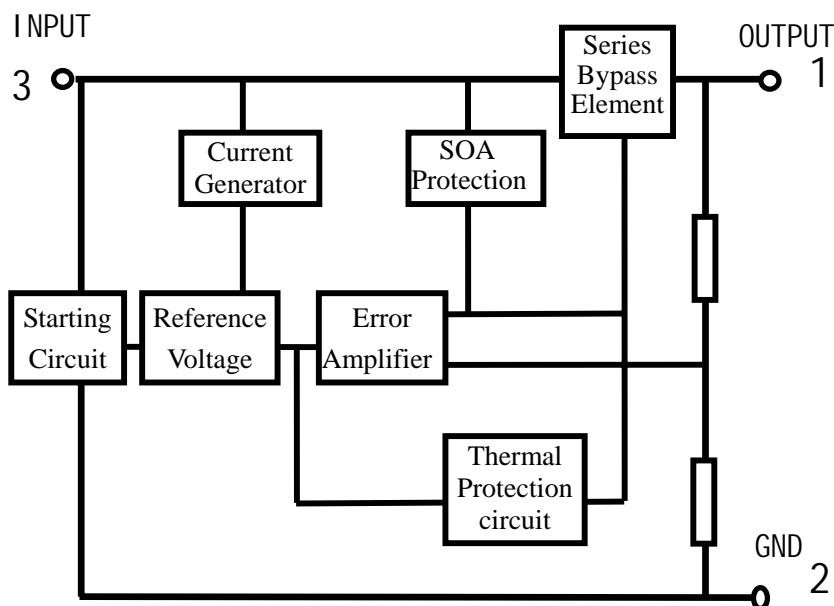
- Output current up to 100mA
- Low noise
- High Ripple Rejection
- Power Amplify Output Protection
- Thermal Overload Protection
- Current Overload Protection and Short Circuit Protection



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

V_{IN}	— Input Voltage	3.5 V
T_{amb}	— Operating Temperature Range.....	-20~85
T_{stg}	— Storage Temperature Range.....	-55~150
T_j	— Junction Temperature.....	-55~150

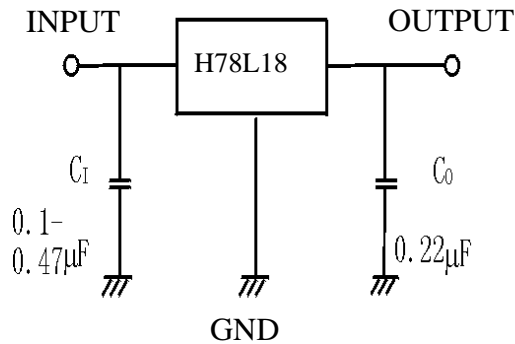
Internal Block Diagram





H78L18

Typical Application



ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, $V_{IN}=27V, I_o=40mA, 0 \leq T_j \leq 125$, $C_{IN}=0.33 \mu F, C_{OUT}=0.1 \mu F$)

Symbol	Parameter	Min.	Typ.	Max.	Unit	Conditions
V_o	Output Voltage	17.3	18	18.7	V	$T_j=25$
		17.1		18.9		$21V \leq V_{IN} \leq 33V, 1mA \leq I_o \leq 40mA$
		17.1		18.9		$21V \leq V_{IN} \leq V_{MAX}, 1mA \leq I_o \leq 70mA$
V_o	Line Regulation		145	300	mV	$T_j=25$, $21V \leq V_{IN} \leq 33V$
			135	250		$T_j=25$, $22V \leq V_{IN} \leq 33V$
V_o	Load Regulation		30	170	mV	$T_j=25$, $1mA \leq I_o \leq 100mA$
			15	85		$T_j=25$, $1mA \leq I_o \leq 40mA$
I_o	Quiescent Current		2.2	6.0	mA	$T_j=25$
I_o	Quiescent Current Change			1.5	mA	$21V \leq V_{IN} \leq 33V,$
				0.1		$1mA \leq I_o \leq 40mA$
V_n	Output Noise Voltage		150		μV	$T_j=25$, $10Hz \leq f \leq 100kHz$
RR	Ripple Rejection	34	48		dB	$T_j=25$, $23V \leq V_{IN} \leq 33V,$ $f=120Hz$
V_o	Dropout Voltage		1.7		V	$T_j=25$
V_o/T	Temperature coefficient of V_o		-1.8		mV/	$I_o=5mA$