

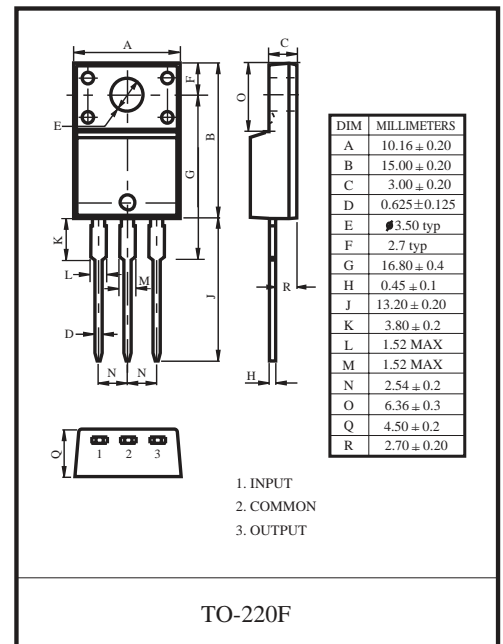
THREE TERMINAL POSITIVE VOLTAGE REGULATORS 5V

FEATURES

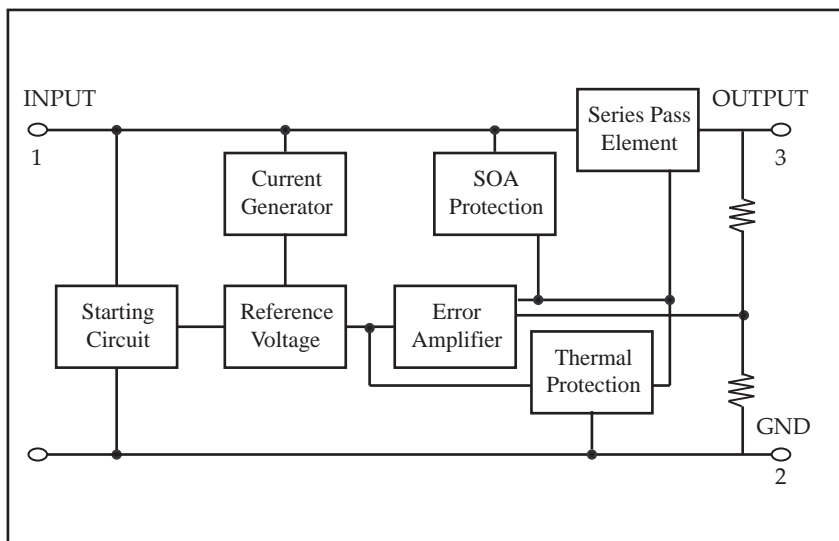
- Suitable for C-MOS, TTL, the Other Digital IC's Power Supply.
- Internal Thermal Overload Protection.
- Internal Short Circuit Current Limiting.
- Output Current in Excess of 1A.
- Satisfies IEC-65 Specification. (International Electronical Commission).

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	LM7805CF	V _{IN}	35	V
Power Dissipation (Tc=25°C)		P _D (TO-220AB)	20.8	W
Power Dissipation (Without Heatsink)		P _D (TO-220AB)	1.5	W
Operating Junction Temperature		T _j	-40 ~ 125	°C
Storage Temperature		T _{stg}	-55 ~ 150	°C



BLOCK DIAGRAM





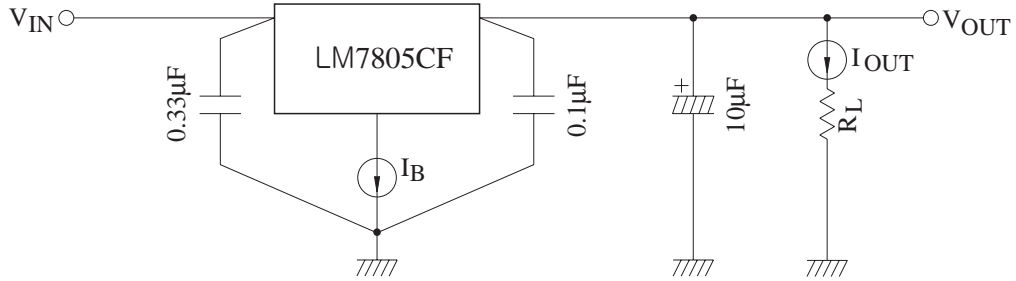
LM7805CF

LM7805CF

ELECTRICAL CHARACTERISTICS ($V_{IN}=10V$, $I_{OUT}=500mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$)

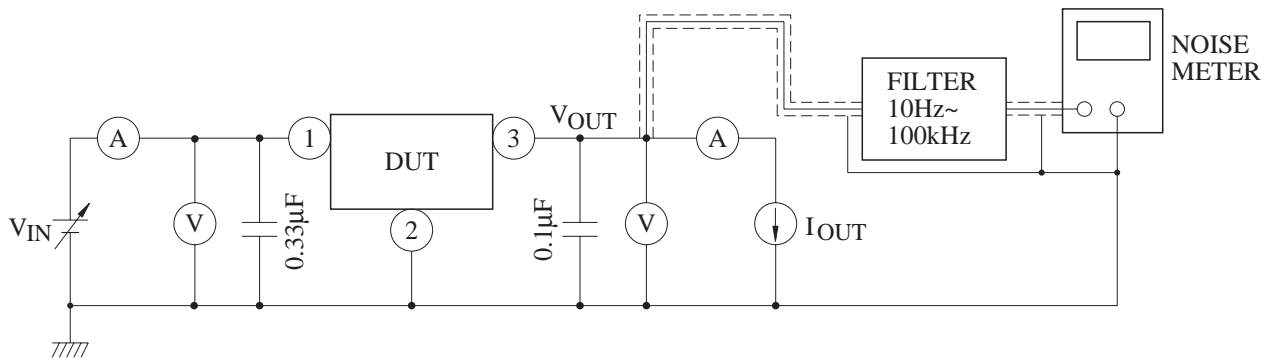
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Output Voltage	V_{OUT}	1	$T_j=25^{\circ}C$, $I_{OUT}=100mA$	4.8	5.0	5.2	V	
			$7.0V \leq V_{IN} \leq 20V$ $5.0mA \leq I_{OUT} \leq 1.0A$, $P_o \leq 15W$	4.75	-	5.25		
Input Regulation	Reg line	1	$T_j=25^{\circ}C$	$7.0V \leq V_{IN} \leq 25V$	-	3	100	mV
				$8.0V \leq V_{IN} \leq 12V$	-	1	50	
Load Regulation	Reg load	1	$T_j=25^{\circ}C$	$5mA \leq I_{OUT} \leq 1.0A$	-	9	100	mV
				$250mA \leq I_{OUT} \leq 750mA$	-	4	50	
Quiescent Current	I_B	1	$T_j=25^{\circ}C$, $I_{OUT}=5mA$	-	4.2	8.0	mA	
Quiescent Current Change	ΔI_B	1	$7.0V \leq V_{IN} \leq 25V$	-	0.3	1.3	mA	
Output Noise Voltage	V_{NO}	1	$T_a=25^{\circ}C$, $10Hz \leq f \leq 100kHz$ $I_{OUT}=50mA$	-	50	-	μV_{rms}	
Ripple Rejection Ratio	RR	1	$f=120Hz$, $8.0V \leq V_{IN} \leq 18V$, $I_{OUT}=50mA$, $T_j=25^{\circ}C$	62	73	-	dB	
Dropout Voltage	V_D	1	$I_{OUT}=1.0A$, $T_j=25^{\circ}C$	-	2.0	-	V	
Short Circuit Current Limit	I_{SC}	1	$T_j=25^{\circ}C$	-	230	-	mA	
Average Temperature Coefficient of Output Voltage	TC_{VO}	1	$I_{OUT}=5mA$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$	-	-0.8	-	mV/ $^{\circ}C$	

TEST CIRCUIT1/STANDARD APPLICATION CIRCUIT



TEST CIRCUIT

1. V_{OUT} , $Reg \cdot line$, $Reg \cdot load$, V_{OUT} , I_B , ΔI_B , V_{NO} , $\Delta V_{OUT}/\Delta t$, $|V_{IN} - V_{OUT}|$, TC_{VO}



2. RR

