

LM7805C

Three-Terminal Positive Voltage Regulators

Features

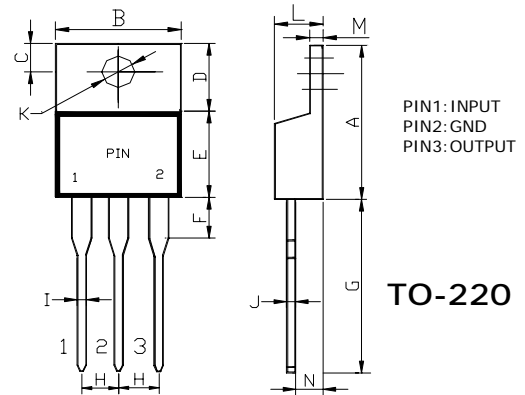
- * Output current at 1.0 Ampere
- * No external components required
- * Internal thermal overload protection
- * Internal short-circuit current limiting
- * Output voltage offered in 4% tolerance

Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V1	30	V
Operating Ambient Temperature	PD	15	W
Operating Junction Temperature	TOPR	-20to+70	°C
Storage Temperature Range	TSTG	-55to+125	°C

Mechanical Data

- * Case: TO-220AB Molded Plastic
- * Terminals: Plated Lead Solderable per MIL-STD-202, Method 208
- * Marking: Type Number
- * Weight: 2.24 grams (approx)



DIM	Dimensions				NO TE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.570	0.620	14.48	15.75	
B	0.380	0.405	9.66	10.28	
C	0.100	0.120	2.54	3.04	
D	0.235	0.255	5.97	6.48	
E	0.335	0.365	8.51	9.27	
F	0.110	0.155	2.80	3.93	
G	0.500	0.562	12.70	14.27	
H	0.095	0.105	2.42	2.66	
I	0.025	0.035	0.64	0.89	
J	0.016	0.025	0.41	0.64	
K	0.142	0.147	3.61	3.37	φ
L	0.160	0.190	4.06	4.82	
M	0.045	0.055	1.14	1.39	
N	0.102 typ		2.6 typ		

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Test conditions
Output Voltage	V _o	4.8V	5.0V	5.2V	T _j =25°C
Load Regulation	ΔV _o		15mV	100mV	5mA ≤ I _o ≤ 1.5A, T _j =25°C
			5.0mV	50mV	250mA ≤ I _o ≤ 750mV, T _j =25°C
Line regulation	ΔV _o		3.0mV	100mV	7V ≤ V ₁ ≤ 25V, T _j =25°C
			1.0mV	50mV	8V ≤ V ₁ ≤ 12V, T _j =25°C
Quiescent Current	I _q		4.2mA	8.0mA	T _j =25°C, I _o =0
Quiescent Current Change	ΔI _q			1.3mA 0.5mA	7V ≤ V ₁ ≤ 25V 5mA ≤ I _o ≤ 1.0A
Output Noise Voltage	V _N		40 μV		f=120Hz
Ripple Rejection	RR	62dB	78dB		8V ≤ V ₁ ≤ 20V, f=120Hz, T _j =25°C
Output Short Circuit Current	R _o		17mohm		f=1.0KHz
Output Short Circuit Current	I _{os}		750mA		T _j =25°C
Peak Output Current	I _{opeak}		2.2A		T _j =25°C
Temperature Coefficient of Output Voltage	ΔV _o /ΔT _j		1.1mV/°C		0°C ≤ V ₁ ≤ 125°C, I _o =5mA