

MC7805CT

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Output current in excess of 1.0 Ampere
- No external components required
- Internal thermal overload protection
- Internal short-circuit current limiting
- Output voltage offered in 2% tolerance
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings @ T_A=25°C, Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	V _I	30	V
Power Dissipation	P _D	15	W
Operating Junction Temperature	T _{OPR}	0---+125	°C
Storage Temperature Range	T _{STG}	-55---+125	°C

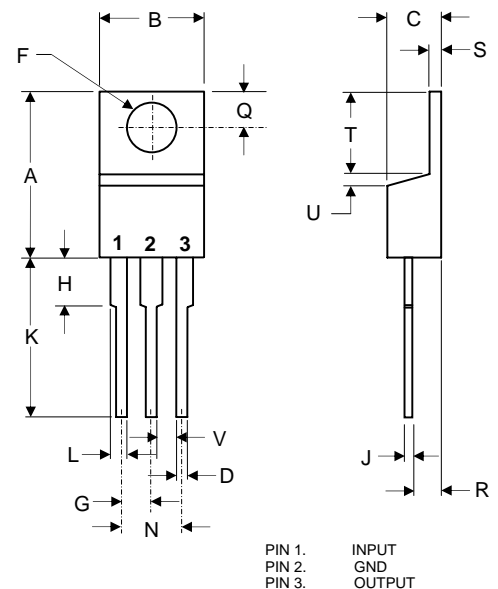
Electrical Characteristics (V_I=10V, I_o=500mA, 0°C<T_j<125°C, C_i=0.33µF, C_o=0.1µF, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V _o	4.9V	5.0V	5.1V	T _j =25°C
		4.85V		5.15V	7V ≤ V _I ≤ 20V, 5mA ≤ I _o ≤ 1.0A, P _D =15W
Load Regulation	ΔV _o		15mV	100mV	5mA ≤ I _o ≤ 1.5A, T _j =25°C,
			5.0mV	50mV	250mA ≤ I _o ≤ 750mA, T _j =25°C
Line regulation	ΔV _o		3.0mV 1.0mV	100mV 50mV	7V ≤ V _I ≤ 25V, T _j =25°C 8V ≤ V _I ≤ 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 _I ≤ 25V 5mA ≤ I _o ≤ 1.0A
Output Noise Voltage	V _N		40µV		f=120Hz
Ripple Rejection	RR	62dB	78dB		8V ≤ V _I ≤ 20V f=120Hz, T _j =25°C
Dropout Voltage	V _d		2.0V		I _o =1.0A, 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 ≤ T _j ≤ 125°C, I _o =5mA

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

Three-Terminal Positive Voltage Regulators

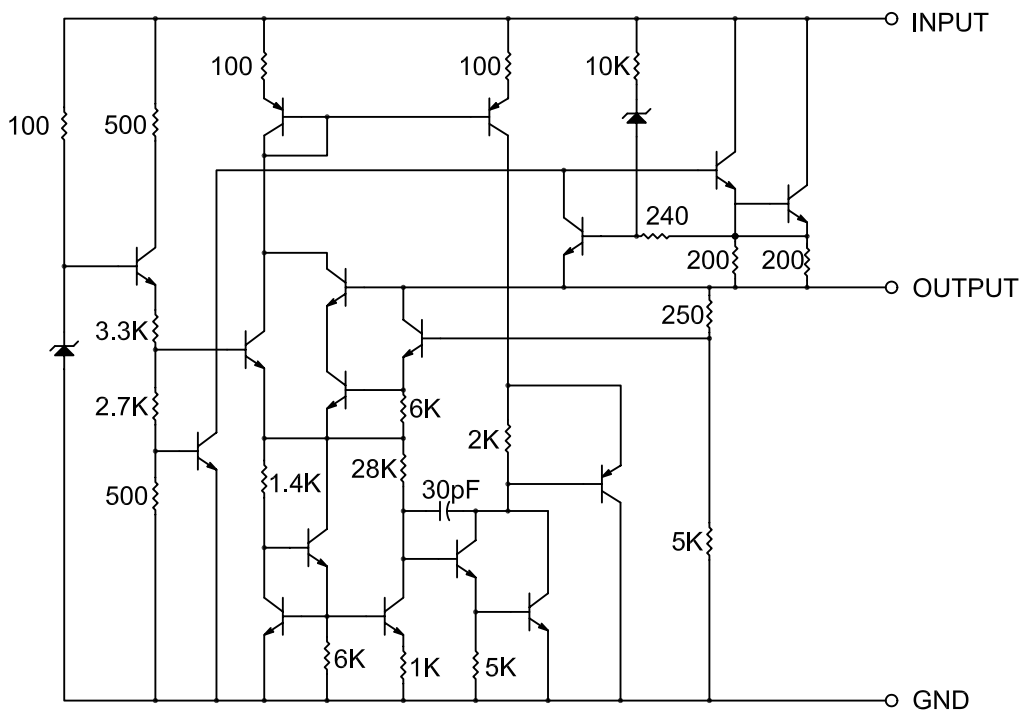
TO-220



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.53	4.09	∅
G	.190	.110	2.29	2.79	
H	---	.250	---	6.35	
J	.012	.025	0.30	0.64	
K	.500	.580	12.70	14.73	
L	.045	.060	1.14	1.52	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.43	
R	.080	.115	2.04	2.92	
S	.045	.055	1.14	1.39	
T	.230	.270	5.84	6.86	
U	----	.050	----	1.27	
V	.045	----	1.15	----	

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Representation Schematic Diagram





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Ordering Information :

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

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