



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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MC7806CT

Three-Terminal Positive Voltage Regulators

Features

- Halogen free available upon request by adding suffix "-HF"
- 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
- Mounting Torque: 5 in-lbs Maximum

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

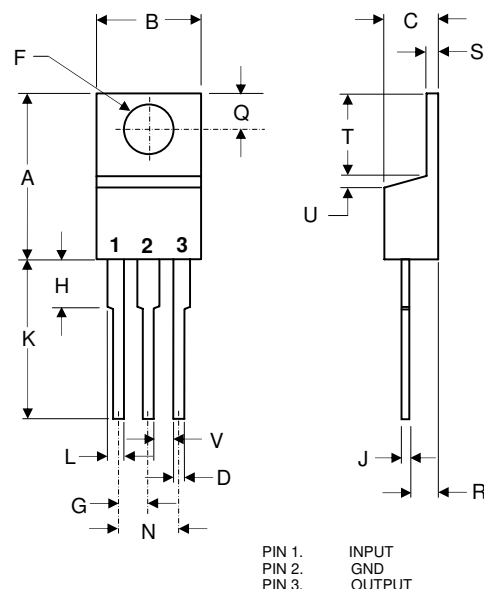
Parameter	Symbol	Value	Unit
Input Voltage	V _I	30	V
Operating Ambient Temperature	P _D	15	W
Operating Junction Temperature	T _{OPR}	-20---+75	°C
Storage Temperature Range	T _{STG}	-55---+125	°C

Electrical Characteristics (V_I=11V, I_O=500mA, 0°C<T_J<125°C, C_i=0.33uF, C_o=0.1uF, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V _O	5.88V	6.0V	6.12V	T _J =25°C
		5.83V		6.17V	8V ≤ V _I ≤ 21V, 5mA ≤ I _O ≤ 1.0A, P _D =15W
Load Regulation	ΔV _O		14mV	120mV	5mA ≤ I _O ≤ 1.5A, T _J =25°C,
			4.0mV	60mV	250mA ≤ I _O ≤ 750mA, T _J =25°C
Line regulation	ΔV _O		5.0mV	120mV	8V ≤ V _I ≤ 25V, T _J =25°C
			1.5mV	60mV	9V ≤ V _I ≤ 13V, T _J =25°C
Quiescent Current	I _q		4.3mA	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		45μV		10Hz ≤ f ≤ 100KHz T _J =25°C
Ripple Rejection	RR	59dB	75dB		f=120Hz
Dropout Voltage	V _d		2.0V		I _O =1.0A, T _J =25°C
Output Short Circuit Current	R _O		19mohm		f=1.0KHz
Output Short Circuit Current	I _{OS}		550mA		T _J =25°C
Peak Output Current	I _{Opeak}		2.2A		T _J =25°C
Temperature Coefficient of Output voltage	ΔV _O /ΔT _J		0.8mV/°C		0°C ≤ T _J ≤ 125°C, I _O =5mA

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

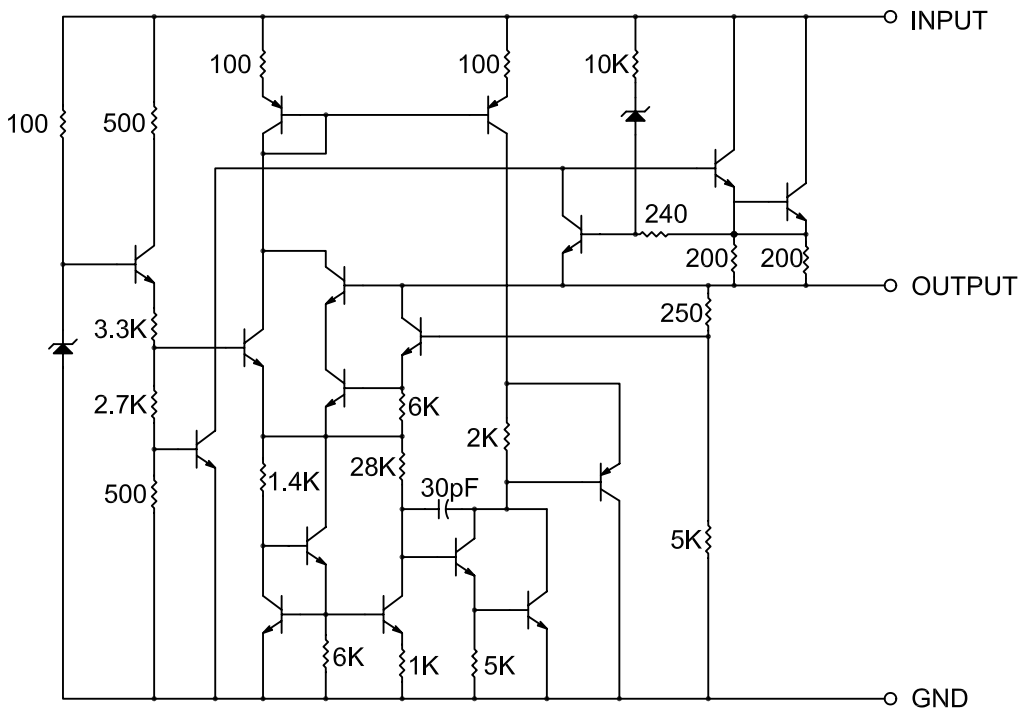
TO-220



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	----	

MC7806CT

Representation Schematic Diagram





TM

Micro Commercial Components

Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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