

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 @ $T_A=25^\circ\text{C}$, Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	V_1	30	V
Operating Ambient Temperature	P_D	15	W
Operating Junction Temperature	T_{OPR}	-20---+75	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55---+125	$^\circ\text{C}$

Electrical Characteristics ($V_i=14\text{V}$, $I_o=500\text{mA}$, $0^\circ\text{C}<T_j<125^\circ\text{C}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, Unless Otherwise Specified)

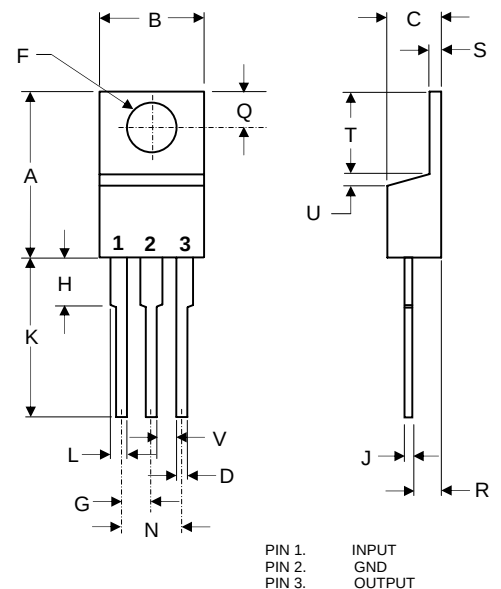
Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	7.84V	8.0V	8.16V	$T_j=25^\circ\text{C}$
		7.74V		8.26V	$10.5\text{V} \leq V_1 \leq 23\text{V}$, $5\text{mA} \leq I_o \leq 1.0\text{A}$, $P_D=15\text{W}$
Load Regulation	ΔV_o		12mV	160mV	$5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$,
			4.0mV	80mV	$250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
Line regulation	ΔV_o		6.0mV	160mV	$10.5\text{V} \leq V_1 \leq 25\text{V}$, $T_j=25^\circ\text{C}$
			2.0mV	80mV	$11\text{V} \leq V_1 \leq 17\text{V}$, $T_j=25^\circ\text{C}$
Quiescent Current	I_q		4.3mA	8.0mA	$T_j=25^\circ\text{C}$, $I_o=0$
Quiescent Current Change	ΔI_q			1.0mA	$10.5\text{V} \leq V_1 \leq 25\text{V}$
				0.5mA	$5\text{mA} \leq I_o \leq 1.0\text{A}$
Output Noise Voltage	V_N		52 μV		$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_j=25^\circ\text{C}$
Ripple Rejection	RR	56dB	72dB		$f=120\text{Hz}$
Dropout Voltage	V_d		2.0V		$I_o=1.0\text{A}$, $T_j=25^\circ\text{C}$
Output Short Circuit Current	R_o		16mohm		$f=1.0\text{KHz}$
Output Short Circuit Current	I_{OS}		450mA		$T_j=25^\circ\text{C}$
Peak Output Current	I_{Opeak}		2.2A		$T_j=25^\circ\text{C}$
Temperature Coefficient of Output voltage	$\Delta V_o / \Delta T_j$		1.8mV/ $^\circ\text{C}$		$0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$, $I_o=5\text{mA}$

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

MC7808CT

Three-Terminal Positive Voltage Regulators

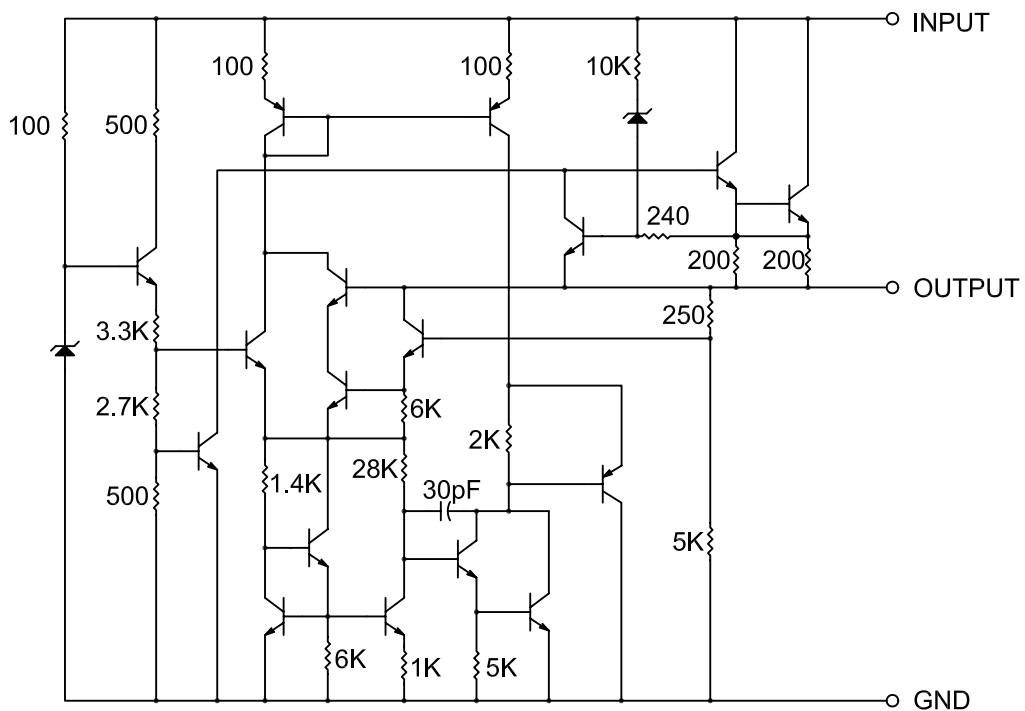
TO-220



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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	
E	.139	.161	3.53	4.09	Ø
F	.190	.210	4.83	5.33	
G	.190	.210	4.83	5.33	
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	---	

MC7808CT

Representation Schematic Diagram



Ordering Information :

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

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[MC7808CT-BP](#)