

MC7812CT

Features

- 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
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

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

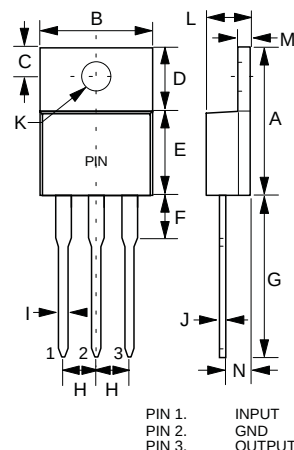
Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Operating Ambient Temperature	P_D	15	W
Operating Junction Temperature	T_{OPR}	-20---+75	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55---+125	$^{\circ}\text{C}$

Electrical Characteristics ($V_I=19\text{V}$, $I_O=500\text{mA}$, $0^{\circ}\text{C}<T_J<125^{\circ}\text{C}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_O	11.76V	12V	12.24V	$T_J=25^{\circ}\text{C}$
		11.66V		12.34V	$14.5\text{V} \leq V_I \leq 30\text{V}$, $5\text{mA} \leq I_O \leq 1.0\text{A}$, $P_D=15\text{W}$
Load Regulation	ΔV_O		12mV	240mV	$5\text{mA} \leq I_O \leq 1.5\text{A}$, $T_J=25^{\circ}\text{C}$,
			4.0mV	120mV	$250\text{mA} \leq I_O \leq 750\text{mA}$, $T_J=25^{\circ}\text{C}$
Line regulation	ΔV_O		10mV	240mV	$14.5\text{V} \leq V_I \leq 30\text{V}$, $T_J=25^{\circ}\text{C}$
			3.0mV	120mV	$16\text{V} \leq V_I \leq 22\text{V}$, $T_J=25^{\circ}\text{C}$
Quiescent Current	I_q		4.3mA	8.0mA	$T_J=25^{\circ}\text{C}$, $I_O=0$
Quiescent Current Change	ΔI_q			1.0mA	$14.5\text{V} \leq V_I \leq 30\text{V}$
				0.5mA	$5\text{mA} \leq I_O \leq 1.0\text{A}$
Output Noise Voltage	V_N		75 μV		$10\text{Hz} \leq f \leq 100\text{KHz}$, $T_J=25^{\circ}\text{C}$
Ripple Rejection	RR	55dB	71dB		$f=120\text{Hz}$
Dropout Voltage	V_d		2.0V		$I_O=1.0\text{A}$, $T_J=25^{\circ}\text{C}$
Output Short Circuit Current	R_O		18mohm		$f=1.0\text{KHz}$
Output Short Circuit Current	I_{OS}		350mA		$T_J=25^{\circ}\text{C}$
Peak Output Current	I_{Opeak}		2.2A		$T_J=25^{\circ}\text{C}$
Temperature Coefficient of Output voltage	$\Delta V_O / \Delta T_J$		1.0mV/ $^{\circ}\text{C}$		$0^{\circ}\text{C} \leq T_J \leq 125^{\circ}\text{C}$, $I_O=5\text{mA}$

Three-Terminal Positive Voltage Regulators

TO-220

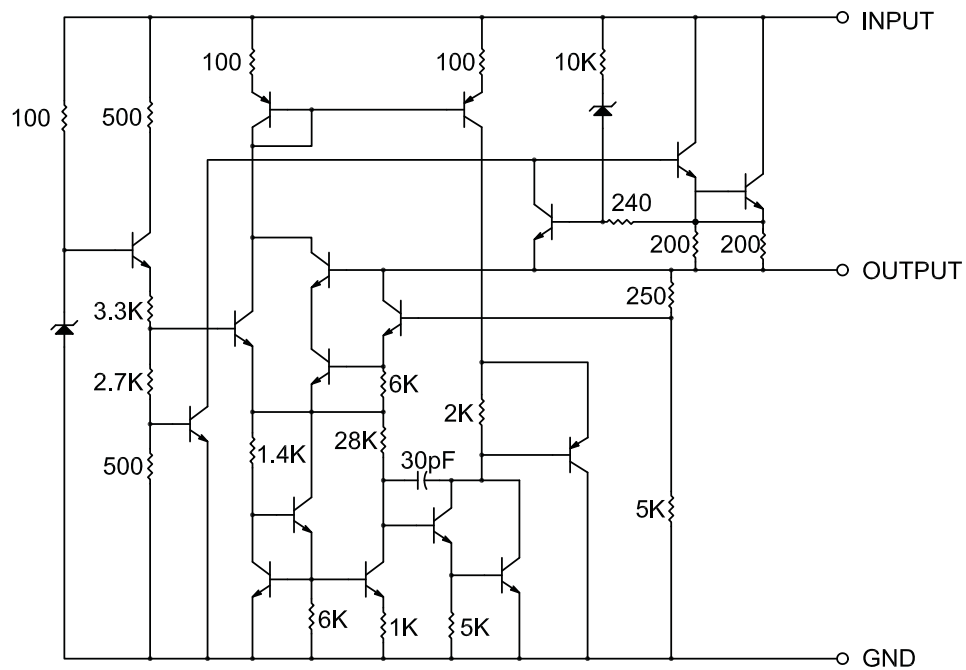


DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	Ø
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

MC7812CT

Representation Schematic Diagram



Ordering Information

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

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.

APPLICATIONS DISCLAIMER

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.