# imall

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!



## Contact us

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**Micro Commercial Components** 

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 Fax: (818) 701-4939

- 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\_=25°C, Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	V <sub>1</sub>	30	V
Operating Ambient Temperature	PD	15	W
Operating Junction Temperature	T <sub>OPR</sub>	-20+75	°C
Storage Temperature Range	T <sub>STG</sub>	-55+125	°C

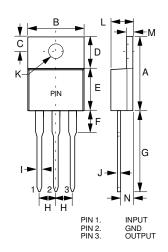
#### Electrical Characteristics (Vi=16V, Io=500mA, 0°C<Tj<125°C, Ci=0.33uF. Co=0.1uF. Unless Otherwise Specified)

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Parameter	Sym	Min	Тур	Max	Test conditions
		9.8V	10.0V	10.2V	T <sub>j</sub> =25°C
Output Voltage	Vo	9.75V		12.25V	$\begin{array}{l} 12.5V {\leq} V_1 {\leq} 30V, \\ 5mA {\leq} I_0 {\leq} 1.0A, \\ P_{\text{D}} {=} 15W \end{array}$
Load Regulation	∆V₀		12mV	240mV	$5mA \leq I_O \leq 1.5A$ , $T_i=25^{\circ}C$ ,
			4.0mV	120mV	250mA $\leq$ I <sub>0</sub> $\leq$ 750mA, T <sub>i</sub> =25°C
Line	$\triangle V_o$		10mV	240mV	$10.5V \le V_1 \le 30V,$
regulation			3.0mV	120mV	$T_{j}=25^{\circ}C$ $13V \le V_{1} \le 19V,$ $T_{j}=25^{\circ}C$
Quiescent Current	Ιq		4.3mA	8.0mA	$T_j=25^{\circ}C, I_O=0$
Quiescent Current Change	$ riangle \mathbf{I}_q$			1.0mA 0.5mA	$\begin{array}{l} 14.5V \! \leq \! V_1 \! \leq \! 30V \\ 5mA \! \leq \! I_o \! \leq \! 1.0A \end{array}$
Output Noise Voltage	$V_{\rm N}$		52µV		10Hz≦f≦100KHz T <sub>j</sub> =25°C
Ripple Rejection	RR	54dB	72dB		f=120Hz
Dropout Voltage	$V_{d}$		2.0V		$I_0=1.0A, T_j=25^{\circ}C$
Output Short Circuit Current	Ro		16mohm		f=1.0KHz
Output Short Circuit Current	I <sub>OS</sub>		450mA		T <sub>j</sub> =25°C
Peak Output Current	I <sub>opeak</sub>		2.2A		T <sub>j</sub> =25°C
Temperature Coefficient of Output voltage	∆V₀⁄ ∆Tj		1.8mV/°C		$0 ^{\circ}C \leq Tj \leq 125 ^{\circ}C,$ I <sub>0</sub> =5mA

### **MC7810CT**

#### **Three-Terminal Positive Voltage Regulators**

#### **TO-220**



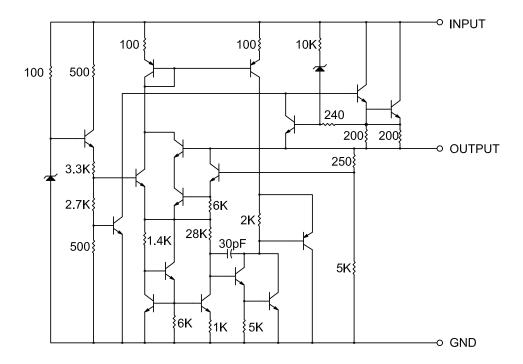
	DIMENSIONS				
	INCHES		ММ		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	.560	.625	14.22	15.88	
В	.380	.420	9.65	10.67	
С	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F		.250		6.35	
G	.500	.580	12.70	14.73	
Н	.090	.110	2.29	2.79	
Ι	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	Ø
L	.140	.190	3.56	4.83	
М	.045	.055	1.14	1.40	
Ν	.080	.115	2.03	2.92	

### www.mccsemi.com

### MC7810CT



#### Representation Schematic Diagram



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#### **Ordering Information**

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

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