



Micro Commercial Components

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MC7910CT

Three-Terminal Negative Voltage Regulators

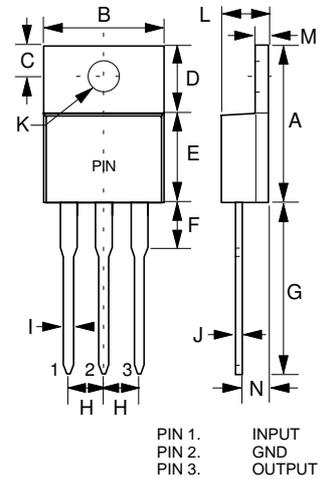
TO-220

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

Maximum Ratings @ T_a=25°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	°C
Storage Temperature Range	T _{STG}	-55---+125	°C



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	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

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Electrical Characteristics ($V_i=15V$, $I_o=500mA$, $0^\circ C < T_j < 125^\circ C$, $C_i=2.0\mu F$, $C_o=1.0\mu F$, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	9.82V	10V	10.18V	$T_j=25^\circ C$
		9.72V		10.28V	$11.5V \leq V_1 \leq 24V$, $5mA \leq I_o \leq 1.0A$, $P_D=15W$
Load Regulation	ΔV_o		12mV	180mV	$5mA \leq I_o \leq 1.5A$, $T_j=25^\circ C$,
			4.0mV	90mV	$250mA \leq I_o \leq 750mA$, $T_j=25^\circ C$
Line regulation	ΔV_o		7.0mV 2.0mV	180mV 90mV	$11.5V \leq V_1 \leq 26V$, $T_j=25^\circ C$ $12V \leq V_1 \leq 18V$, $T_j=25^\circ C$
Quiescent Current	I_q		2.2mA	4.5mA	$T_j=25^\circ C$, $I_o=0$
Quiescent Current Change	ΔI_q			1.0mA 0.5mA	$11.5V \leq V_1 \leq 26V$ $5mA \leq I_o \leq 1.0A$
Output Noise Voltage	V_N		58 μV		$10Hz \leq f \leq 100KHz$ $T_j=25^\circ C$
Ripple Rejection	RR	56dB	71dB		$f=120Hz$
Dropout Voltage	V_d		1.1V		$I_o=1.0A$, $T_j=25^\circ C$
Peak Output Current	I_{opeak}		2.1A		$T_j=25^\circ C$
Temperature Coefficient of Output voltage	$\Delta V_o/\Delta T_j$		0.6mV/ $^\circ C$		$0^\circ C \leq T_j \leq 125^\circ C$, $I_o=5mA$

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Representation Schematic Diagram

