



Micro Commercial Components



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# MC78M08ACDT

## Features

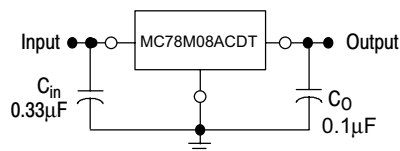
- Output current in excess of 0.5 Ampere
- Internal thermal overload protection
- Internal short-circuit current limiting
- High power dissipation capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings @ T<sub>A</sub>=25°C, Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	V <sub>i</sub>	35	V
Operating Junction Temperature Range	T <sub>OPR</sub>	0---+125	°C
Storage Temperature Range	T <sub>STG</sub>	-65---+150	°C

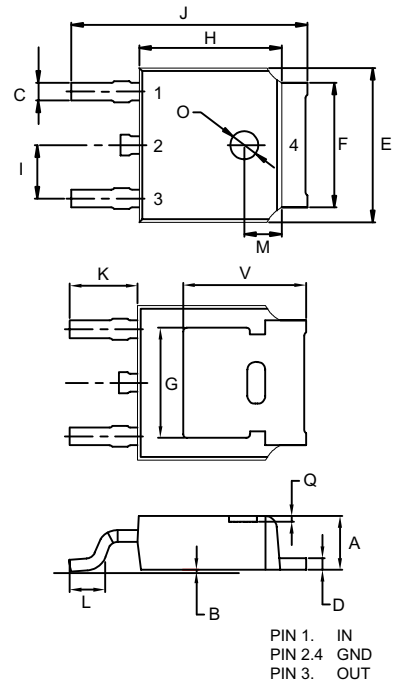
### Electrical Characteristics (V<sub>i</sub>=14V, I<sub>o</sub>=350mA, 0°C < T<sub>j</sub> < 125 °C, C<sub>i</sub>=0.33µF, C<sub>o</sub>=0.1µF, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V <sub>o</sub>	7.84V	8.0V	8.16V	T <sub>j</sub> =25°C
		7.74V	8.0V	8.26V	10.5V ≤ V <sub>i</sub> ≤ 23V, 5mA ≤ I <sub>o</sub> ≤ 350mA, P <sub>r</sub> =15W
Load Regulation	ΔV <sub>o</sub>		20mV	160mV	5mA ≤ I <sub>o</sub> ≤ 0.5A, T <sub>j</sub> =25°C
			10mV	80mV	5mA ≤ I <sub>o</sub> ≤ 200mA, T <sub>j</sub> =25°C
Line regulation	ΔV <sub>o</sub>		6mV 2.0mV	100mV 50mV	10.5V ≤ V <sub>i</sub> ≤ 25V, I <sub>o</sub> =0.2A 11V ≤ V <sub>i</sub> ≤ 25V, I <sub>o</sub> =0.2A
Quiescent Current	I <sub>q</sub>		4.6mA	6.0mA	T <sub>j</sub> =25°C
Quiescent Current Change	ΔI <sub>q</sub>			0.8mA 0.5mA	10.5V ≤ V <sub>i</sub> ≤ 25V, I <sub>o</sub> =0.2A 5mA ≤ I <sub>o</sub> ≤ 350mA
Output Noise Voltage	V <sub>N</sub>		52µV		10Hz ≤ f ≤ 100Hz
Ripple Rejection	RR	56dB	80dB		11.5V ≤ V <sub>i</sub> ≤ 21.5V f=120Hz, I <sub>o</sub> =0.3A T <sub>j</sub> =25°C
Dropout Voltage	V <sub>d</sub>		2.0V		T <sub>j</sub> =25°C
Output Short Circuit Current	I <sub>sc</sub>		250mA		V <sub>i</sub> =14V, T <sub>j</sub> =25°C
Peak Output Current	I <sub>pk</sub>		0.7A		T <sub>j</sub> =25°C



## Three-Terminal Positive Voltage Regulators

### DPAK



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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