



Micro Commercial Components



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## MC78M08CDT

### Features

- Halogen free available upon request by adding suffix "-HF"
- 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

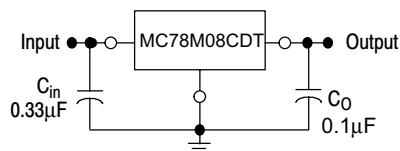
### Maximum Ratings @ $T_A=25^\circ\text{C}$ , Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	10.5~25	V
Storage Temperature Range	$T_{STG}$	-65---+150	$^\circ\text{C}$

### Electrical Characteristics ( $V_i=10\text{V}$ , $I_o=350\text{mA}$ , $0^\circ\text{C}<T_j<125^\circ\text{C}$ , $C_i=0.33\mu\text{F}$ , $C_o=0.1\mu\text{F}$ , Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	$V_o$	7.7V	8.0V	8.3V	$T_j=25^\circ\text{C}$
		7.6V	8.0V	8.4V	$10.5\text{V}\leq V_i\leq 23\text{V}$ , $5\text{mA}\leq I_o\leq 350\text{mA}$ ,
Load Regulation	$\Delta V_o$			160mV	$5\text{mA}\leq I_o\leq 0.5\text{A}$ , $T_j=25^\circ\text{C}$
				80mV	$5\text{mA}\leq I_o\leq 200\text{mA}$ , $T_j=25^\circ\text{C}$
Line regulation	$\Delta V_o$			100mV	$11\text{V}\leq V_i\leq 25\text{V}$ , $I_o=0.2\text{A}$
				50mV	$10.5\text{V}\leq V_i\leq 25\text{V}$ , $I_o=0.2\text{A}$
Quiescent Current	$I_q$			6.0mA	$T_j=25^\circ\text{C}$
Quiescent Current Change	$\Delta I_q$			0.8mA 0.5mA	$10.5\text{V}\leq V_i\leq 25\text{V}$ , $I_o=0.2\text{A}$ $5\text{mA}\leq I_o\leq 350\text{mA}$
Output Noise Voltage	$V_N$		52 $\mu\text{V}$		$10\text{Hz}\leq f\leq 100\text{Hz}$
Dropout Voltage	$V_d$		2.0V		$T_j=25^\circ\text{C}$

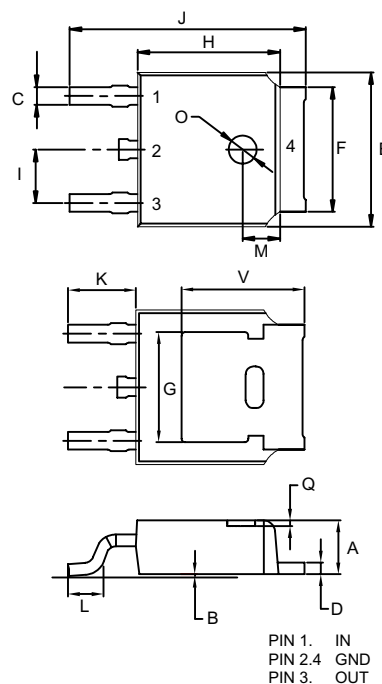
### TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

### 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		

## Ordering Information :

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

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

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