



Micro Commercial Components

MC78M06ACDT

Features

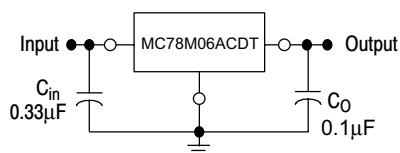
- Output current in excess of 0.5 Ampere
- Internal thermal overload protection
- Internal short-circuit current limiting
- High power dissipation capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0---+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65---+150	$^\circ\text{C}$

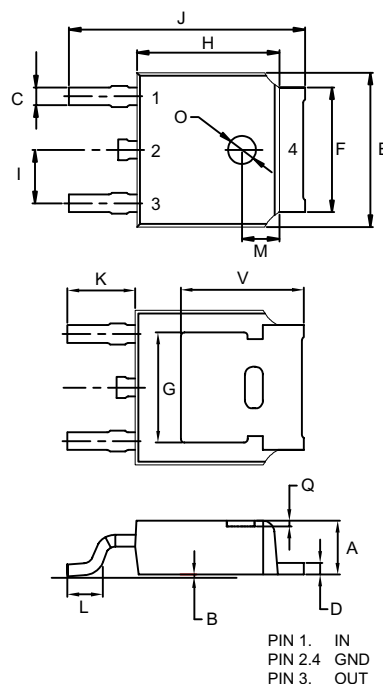
Electrical Characteristics ($V_i=11\text{V}$, $I_o=350\text{mA}$, $0^\circ\text{C}<T_j<125^\circ\text{C}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	5.88V	6.0V	6.12V	$T_j=25^\circ\text{C}$
		5.83V	6.0V	6.17V	$8\text{V}\leq V_i\leq 21\text{V}$, $5\text{mA}\leq I_o\leq 350\text{mA}$, $P_D=15\text{W}$
Load Regulation	ΔV_o		18mV	120mV	$5\text{mA}\leq I_o\leq 0.5\text{A}$, $T_j=25^\circ\text{C}$
			10mV	60mV	$5\text{mA}\leq I_o\leq 200\text{mA}$, $T_j=25^\circ\text{C}$
Line regulation	ΔV_o		5mV 1.5mV	100mV 50mV	$8\text{V}\leq V_i\leq 25\text{V}$, $I_o=0.2\text{A}$ $9\text{V}\leq V_i\leq 25\text{V}$, $I_o=0.2\text{A}$
Quiescent Current	I_q		4.3mA	6.0mA	$T_j=25^\circ\text{C}$
Quiescent Current Change	ΔI_q			0.8mA 0.5mA	$9\text{V}\leq V_i\leq 25\text{V}$, $I_o=0.2\text{A}$ $5\text{mA}\leq I_o\leq 350\text{mA}$
Output Noise Voltage	V_N		45 μV		10Hz $\leq f\leq$ 100Hz
Ripple Rejection	RR	59dB	80dB		$9\text{V}\leq V_i\leq 19\text{V}$ $f=120\text{Hz}$, $I_o=0.3\text{A}$ $T_j=25^\circ\text{C}$
Dropout Voltage	V_d		2.0V		$T_j=25^\circ\text{C}$
Output Short Circuit Current	I_{sc}		270mA		$V_i=11\text{V}$, $T_j=25^\circ\text{C}$
Peak Output Current	I_{pk}		0.7A		$T_j=25^\circ\text{C}$



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		