



MC78M05CT

Three-Terminal Positive Voltage Regulators

Features

- Halogen free available upon request by adding suffix "-HF"
- Maximum Output current I_{om} : 1.5 A
- Internal thermal overload protection
- Thermal Resistance from Junction to Air : 66.7 °C/W
- Thermal Resistance from Junction to Case : 6.67°C/W
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

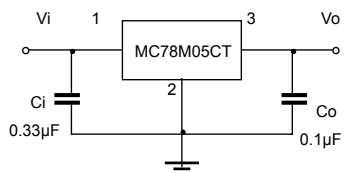
Maximum Ratings @ $T_A=25^\circ\text{C}$, Unless Otherwise Noted

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Power Dissipation	P_D	1.5	W
Operating Junction Temperature	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

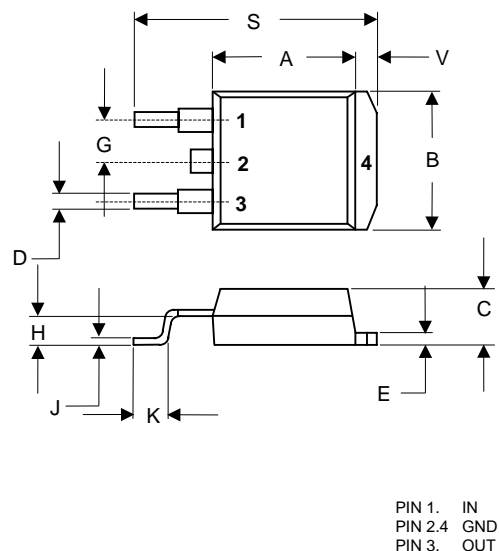
Electrical Characteristics ($V_i=10\text{V}$, $I_o=350\text{mA}$, $0^\circ\text{C}<T_j<125^\circ\text{C}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, Unless Otherwise Specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	4.8V	5.0V	5.2V	$T_j=25^\circ\text{C}$
		4.75V	5.0V	5.25V	$7\text{V} \leq V_i \leq 20\text{V}$, $5\text{mA} \leq I_o \leq 1\text{A}$, $P \leq 15\text{W}$, $0-125^\circ\text{C}$
Load Regulation	ΔV_o		9mV	100mV	$5\text{mA} \leq I_o \leq 1.5\text{A}$, $T_j=25^\circ\text{C}$
			4.0mV	50mV	$250\text{mA} \leq I_o \leq 750\text{mA}$, $T_j=25^\circ\text{C}$
Line regulation	ΔV_o		4.0mV	100mV	$7\text{V} \leq V_i \leq 25\text{V}$, $8\text{V} \leq V_i \leq 12\text{V}$,
			1.6mV	50mV	
Quiescent Current	I_q		5.0mA	8.0mA	$T_j=25^\circ\text{C}$
Quiescent Current Change	ΔI_q		0.3mA	1.3mA	$7\text{V} \leq V_i \leq 25\text{V}$, $0-125^\circ\text{C}$
Output Noise Voltage	V_N		42µV		$10\text{Hz} \leq f \leq 100\text{Hz}$
Ripple Rejection	RR	62dB	73dB		$8\text{V} \leq V_i \leq 18\text{V}$, $f=120\text{Hz}$,
Dropout Voltage	V_d		2.0V		$I_o=1.0\text{A}$, $T_j=25^\circ\text{C}$
Output Short Circuit Current	I_{sc}		230mA		$T_j=25^\circ\text{C}$
Peak Output Current	I_{pk}		2.2A		$T_j=25^\circ\text{C}$

TYPICAL APPLICATION

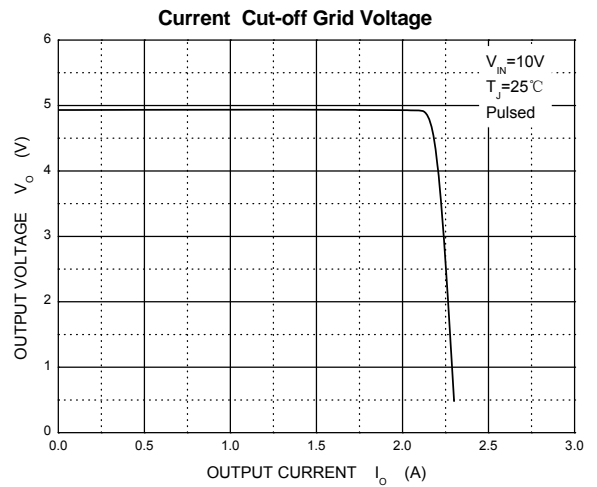
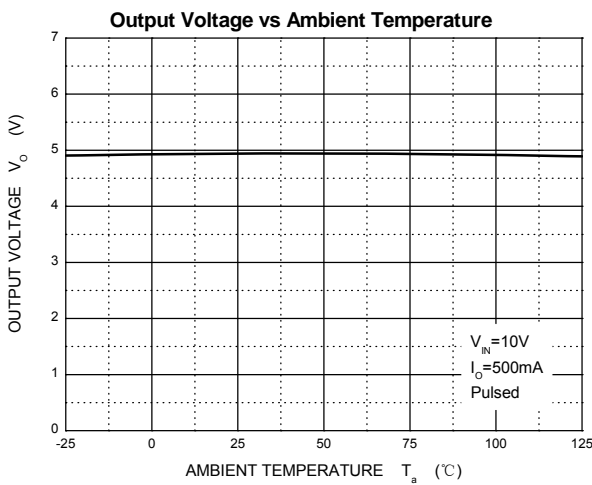
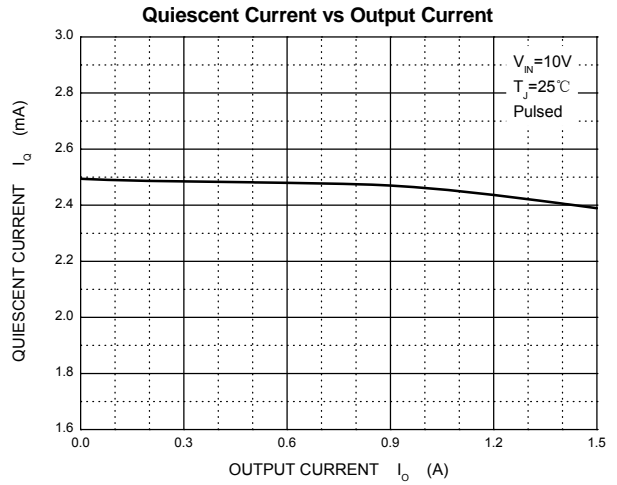
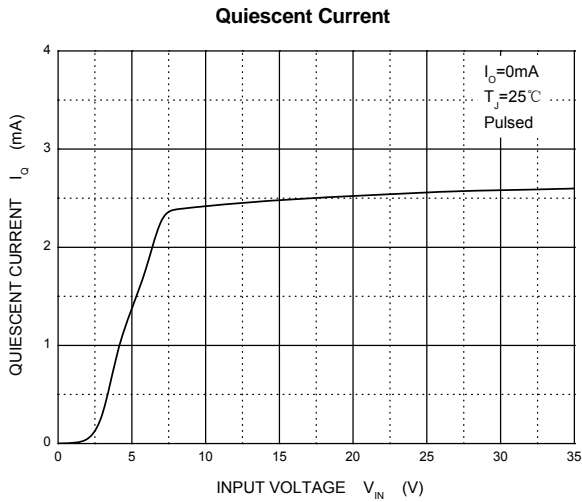
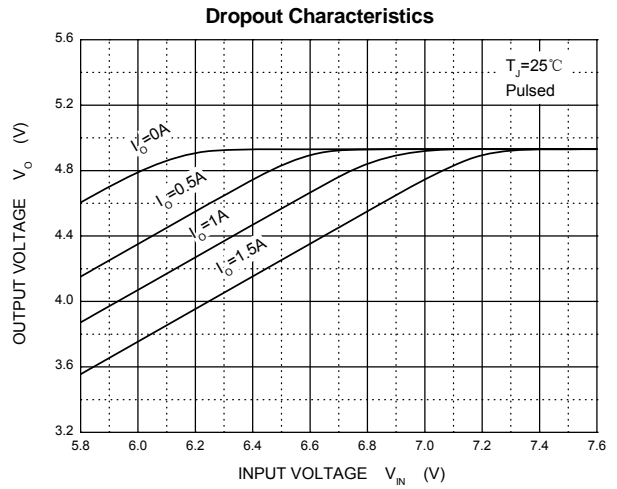
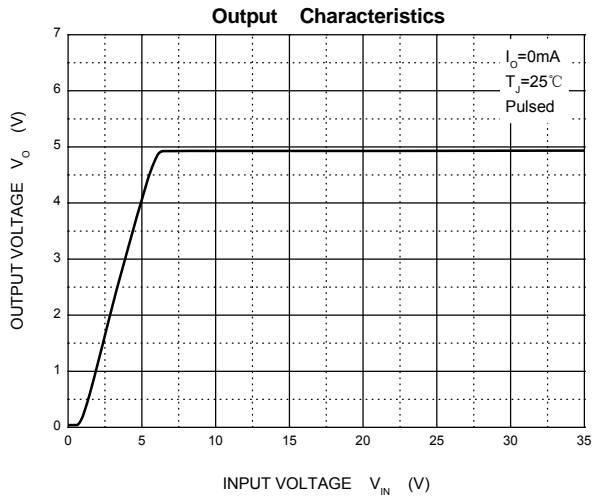


D²-PAK

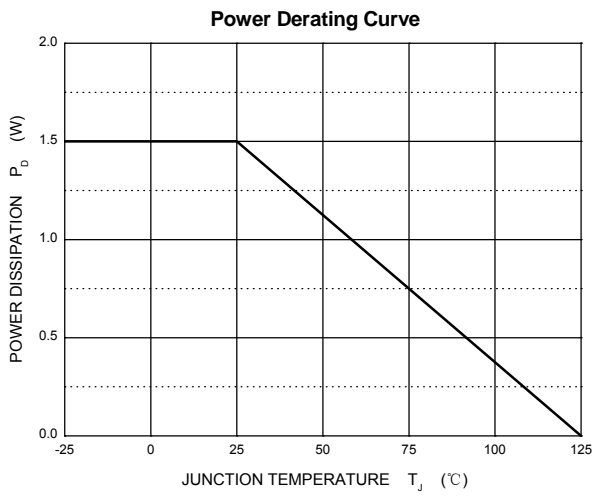


DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.320	.359	8.13	9.14	
B	.380	.411	9.65	10.45	
C	.160	.190	4.06	4.83	
D	.020	.035	0.51	0.89	
E	.045	.055	1.14	1.40	
G	.095	.105	2.41	2.67	
H	.096	.120	2.43	3.03	
J	.014	.021	0.35	0.53	
K	.090	.110	2.29	2.79	
S	.575	.625	14.60	15.80	
V	.045	.055	1.14	1.40	

Typical Characteristics



Typical Characteristics



Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 800pcs/Reel

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

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