Three-Terminal Positive Voltage Regulators

Features

- Output Current in Excess of 0.5 Ampere
- Internal Thermal Overload Protection
- Internal Short-circuit Current Limiting
- High Power Dissipation Capability
- Moisture Sensitivity Level 1
- Halogen Free. “Green” Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

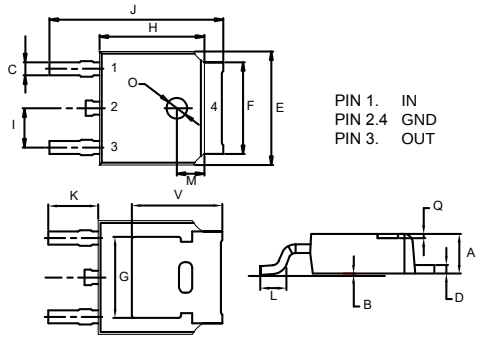
Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Power Dissipation	P_D	1.25	W
Operating Junction Temperature Range	T_{OPR}	0~125	℃
Storage Temperature Range	T_{STG}	-65~125	℃
Thermal Resistance junction to Ambient	$R_{\theta JA}$	100	℃/W

Note:

1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

DPAK(TO-252)



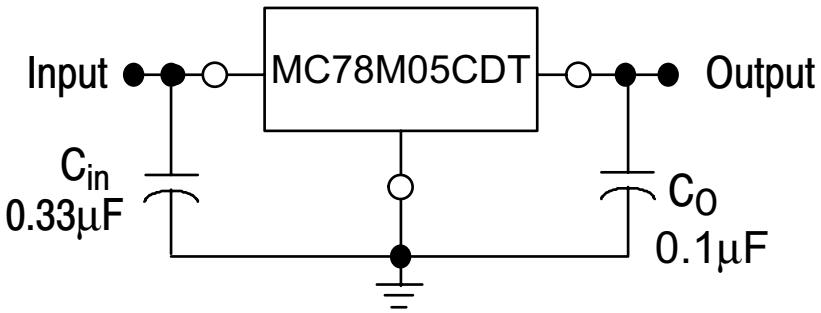
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		TYP.
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	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

Electrical Characteristics

(V_i=10V, I_o=350mA, 0°C＜T_j＜ 125 °C,C_i=0.33uF, C_o=0.1uF,Unless Otherwise Specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	Vo	T_j=25°C	4.8	5.0	5.2	V
		7V≤V_i≤20V,5mA≤I_o≤350mA, P_D=15W	4.75	5.0	5.25	V
Load Regulation	△Vo	5mA≤I_o≤500mA,T_j=25°C	-	15	100	mV
		5mA≤I_o≤200mA,T_j=25°C	-	5.0	50	mV
Line Regulation	△Vo	7.0V≤V_1≤25V,I_o=0.5A	-	3.0	100	mV
		8.0V≤V_1≤25V,I_o=0.5A	-	1.0	50	mV
Quiescent Current	Iq	T_j=25°C	-	4.2	6.0	mA
Quiescent Current Change	$\triangle I_q$	8V≤V_i≤25V,I_o=200mA, 5mA≤I_o≤350mA	-	-	0.8	mA
			-	-	0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤120Hz	-	40	200	μV
Ripple Rejection	RR	8V≤V_i≤18V, f=120Hz,I_o=0.3A,T_j=25°C	62	80	-	dB
Dropout Voltage	V_d	I_o=0.35A,T_j=25°C	-	2.0	2.5	V
Output Short Circuit Current	I_{sc}	V_i=10V, T_j=25°C	-	300	-	mA
Peak Output Current	I_{PK}	T_j=25°C	-	0.7	-	A

Typcial Application



Curve Characteristics

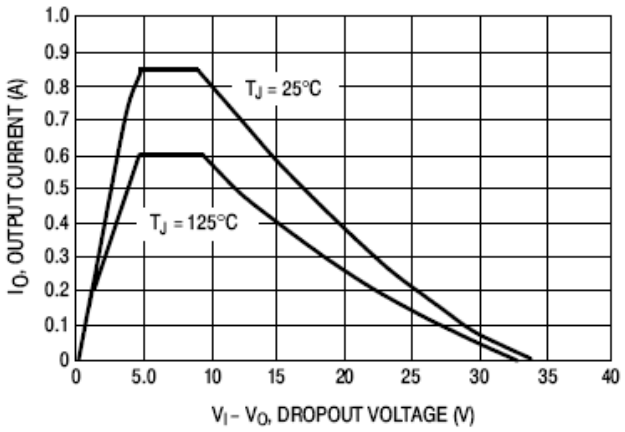


Figure 1.Peak Output Current versus Dropout Voltage

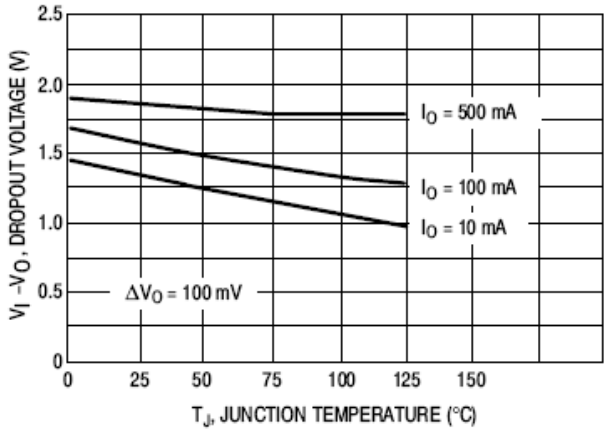


Figure 2. Dropout Voltage versus Junction Temperature

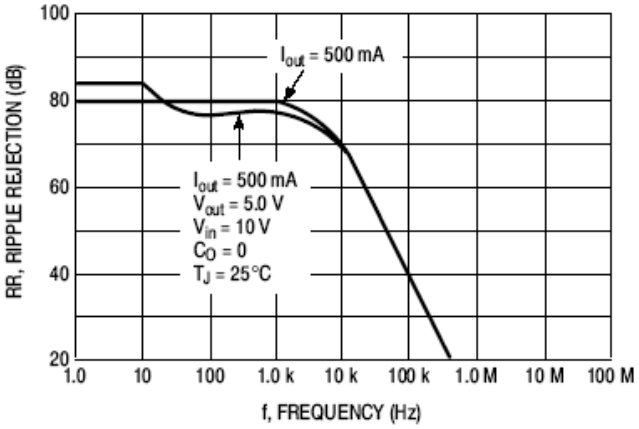


Figure 3. Ripple Rejection versus Frequency

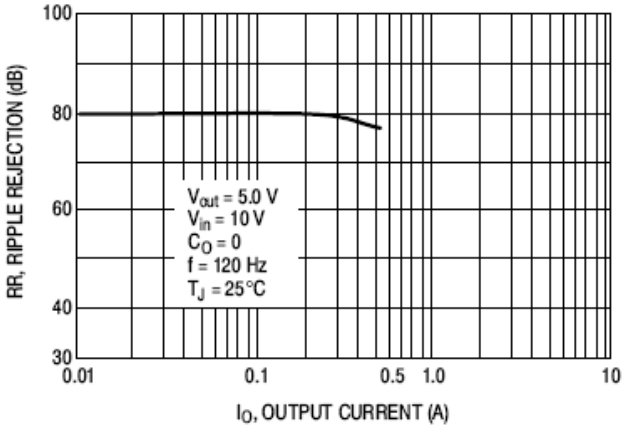


Figure 4. Ripple Rejection versus Output Current

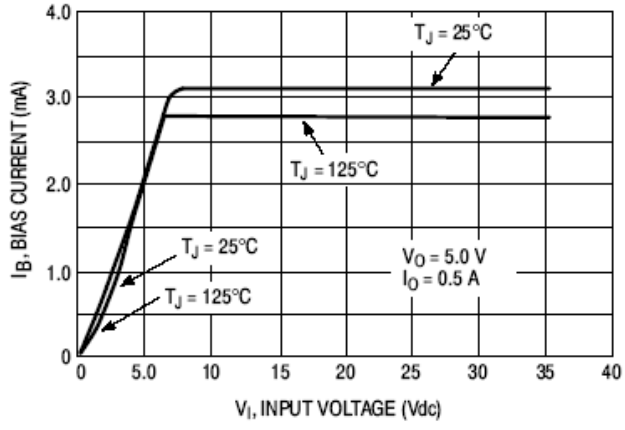


Figure 5. Bias Current versus Input Voltage

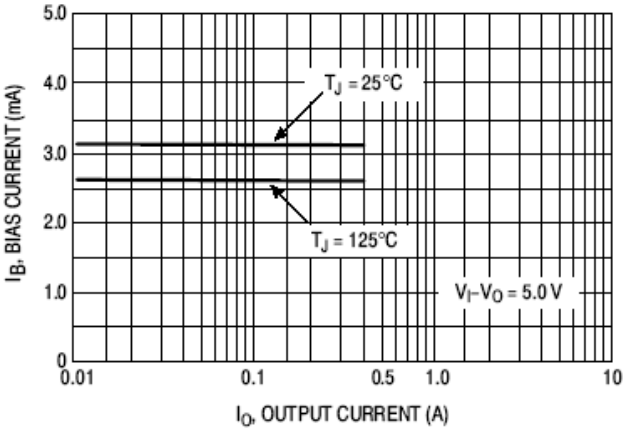


Figure 6. Bias Current versus Output Current

Ordering Information

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