



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA91311
Phone: (818)-701-4933
Fax: (818)-701-4939

Features

- Maximum Output current $I_o: 0.1A$
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

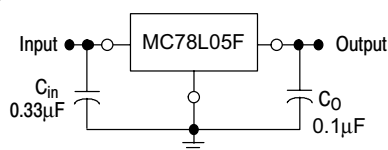
Parameter	Symbol	Value	Unit
Input Voltage ($V_o=5.8V$)	V_1	30	V
Operating Junction Temperature	T_{OPR}	-20---+120	°C
Storage Temperature Range	T_{STG}	-55---+150	°C

Electrical Characteristics ($V_1=10V$, $I_o=40mA$, $0^\circ C < T_j < 125^\circ C$, $C_1=0.33\mu F$, $C_o=0.1\mu F$, unless otherwise specified)

Parameter	Sym	Min	Typ	Max	Test conditions
Output Voltage	V_o	4.8V	5.0V	5.2V	$T_j=25^\circ C$
		4.7V		5.25V	$7V \leq V_1 \leq 20V$, $I_o=1mA-40mA$
		5.0V		5.25V	$7V \leq V_1 \leq V_{MAX}$, $I_o=1mA-700mA$ (Note)
		4.7V		5.25V	$I_o=1mA-100mA$, $T_j=25^\circ C$
Load Regulation	ΔV_o		11mV	60mV	$I_o=1mA-40mA$, $T_j=25^\circ C$
			5.0mV	30mV	$I_o=1mA-40mA$, $T_j=25^\circ C$
Line regulation	ΔV_o		8mV	150mV	$7V \leq V_1 \leq 20V$, $T_j=25^\circ C$
Quiescent Current	I_q		2.0mA	5.5mA	$8V \leq V_1 \leq 20V$
				1.5mA	$8V \leq V_1 \leq 20V$
Quiescent Current Change	ΔI_q			0.1mA	$1mA \leq I_o \leq 40mA$
Output Noise Voltage	V_N		40μV		$10Hz \leq f \leq 100KHz$
Ripple Rejection	RR	41dB	80dB		$8V \leq V_1 \leq 20V$, $f=120Hz$, $T_j=25^\circ C$
Dropout Voltage	V_d		1.7V		$T_j=25^\circ C$

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

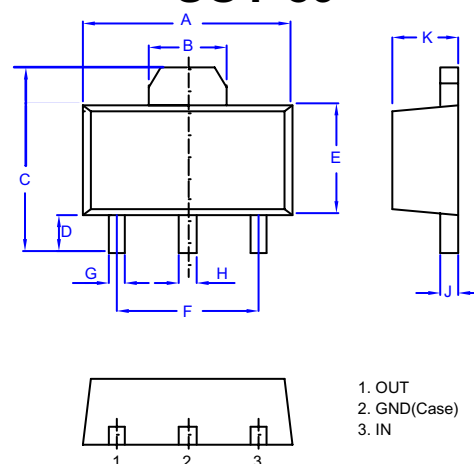
Typical Application:



MC78L05F

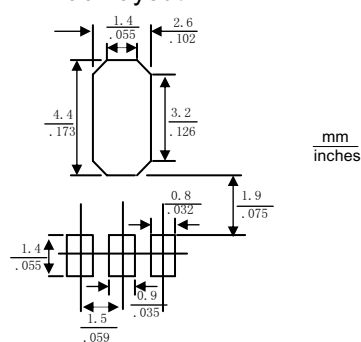
Three-Terminal Low Current Positive Voltage Regulator

SOT-89



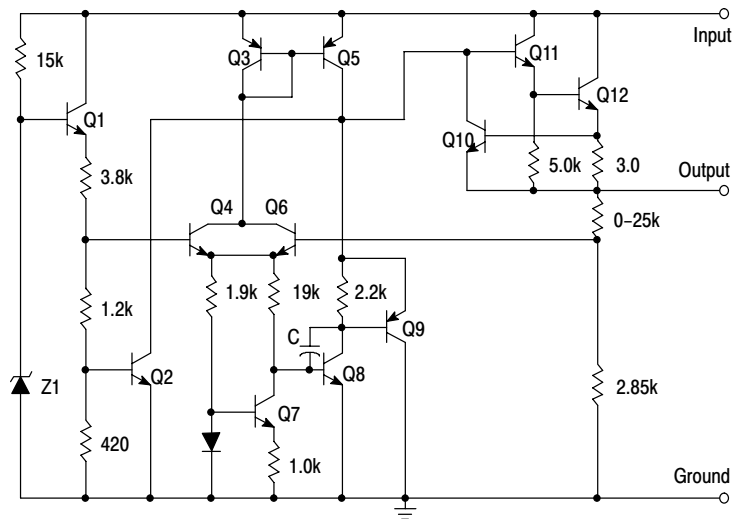
DIMENSINS					NOTES
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.061	----	1.55	----	REF.
C	.154	.165	3.91	4.25	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

Suggested Solder Pad Layout



MC78L05F

Figure 1. Representative Schematic Diagram



Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 1Kpcs/Reel

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[MC78L05F-TP](#)