Micro Commercial Components
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MC28L05

Three-terminal Voltage Regulators

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Maximum output current Io:100mA
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1

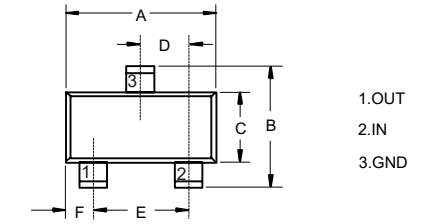
Maximum Ratings

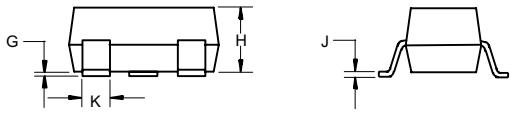
Symbol	Rating	Rating	Unit
V_I	Input Voltage Range	-30~+45	V
T_{OPR}	Operating Ambient Temperature Range	-40~+85	°C
T_{STG}	Storage Temperature Range	-55~+150	°C
R_{thJA}	Thermal Resistance From Junction to Ambient	285	°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Input voltage	V_I	Io=10mA		4.75		40	V
Output voltage	V_O	Io=10mA		4.9	5	5.1	V
Load regulation	ΔVo	Io=1mA-100mA			0.6		%
Line regulation	ΔVo	7V≤V_I≤24V,V_O=5V,I_O=1mA			0.02		%/V
		7V≤V_I≤45V,V_O=5V,I_O=1mA			0.1		%/V
Quiescent current	Iq	V_I=7V,No load				15	μA
		V_I=24V,No load				16	μA
		V_I=40V,No load				20	μA
Dropout Voltage	Vd	Io=1mA				12	mV
		Io=100mA				1200	mV
Output noise voltage	V_N	Io=10mA		-100		100	μV
Ripple rejection	RR	V_I=7V,	f=100Hz		60		dB
		V_{PP}=0.5V,	f=1kHz		45		dB
		I_O=1mA	f=10kHz		35		dB
Maximum output current	I_{PK}	R_L=1 Ω		180		460	mA
Thermal protection	T_{SD}	I_O=1mA			165		°C
Thermal protection Hys	T_{SD_HYS}	I_O=1mA			30		°C
Temperature coefficient	$\Delta V_O/\Delta T$	I_O=1mA			±0.5		mV/°C

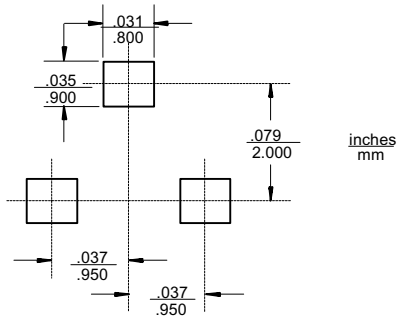
SOT-23





DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

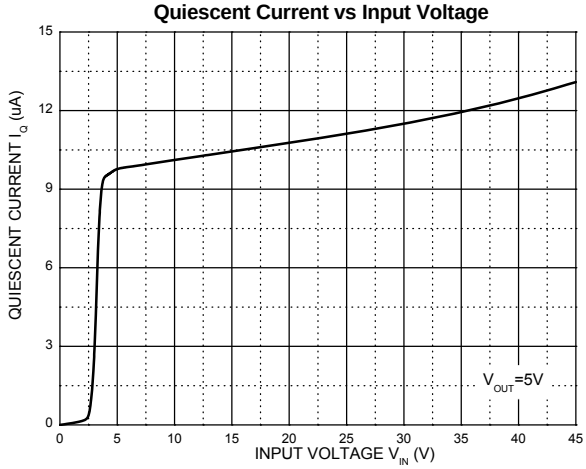
Suggested Solder Pad Layout



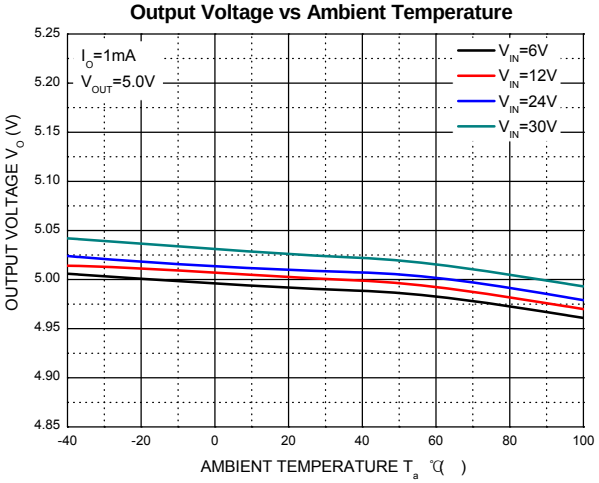
Typical Characteristics

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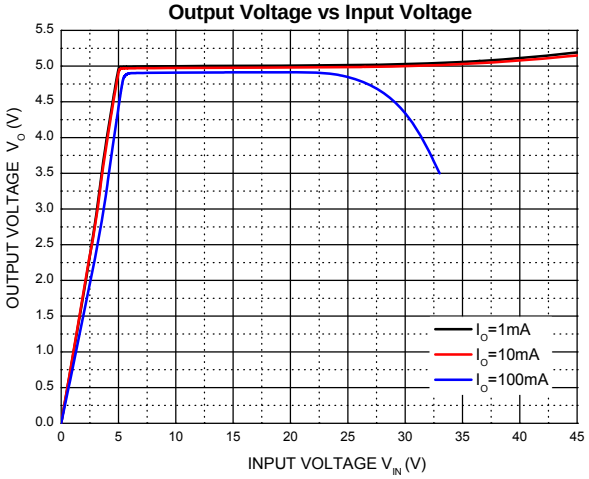
Quiescent Current vs Input Voltage



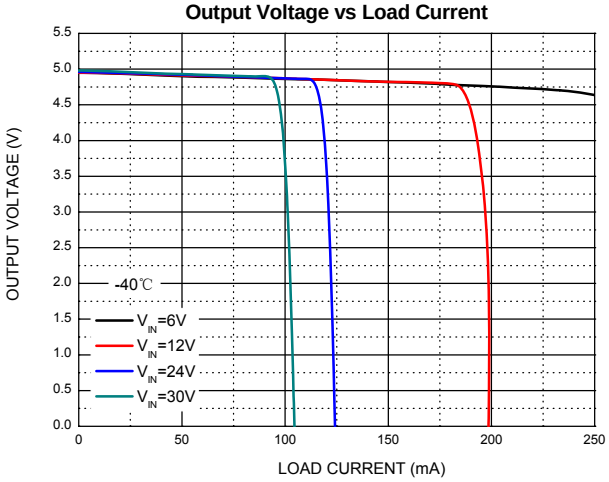
Output Voltage vs Ambient Temperature



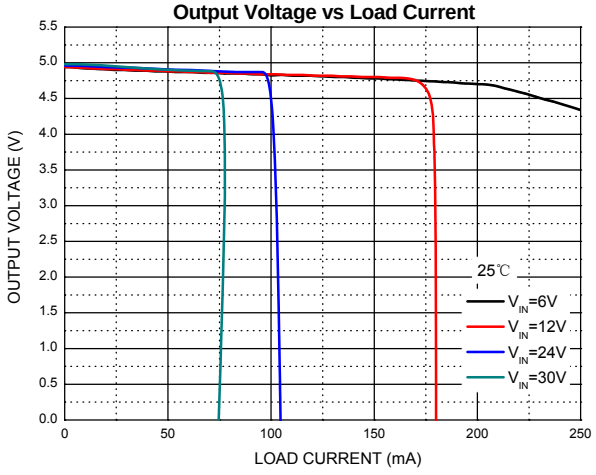
Output Voltage vs Input Voltage



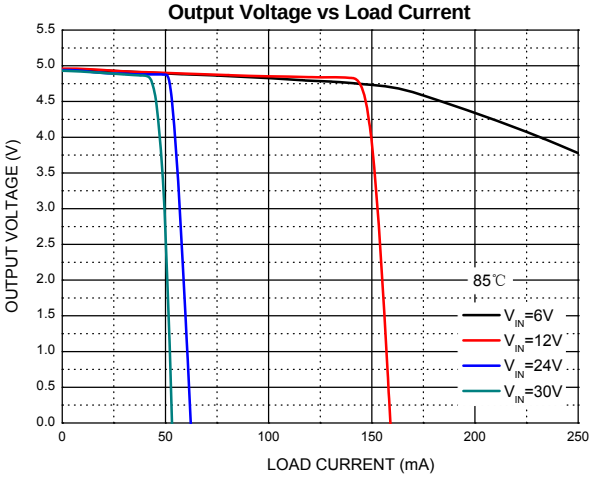
Output Voltage vs Load Current



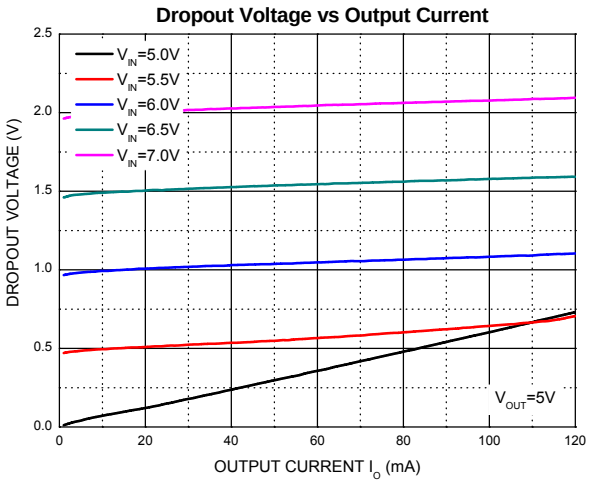
Output Voltage vs Load Current



Output Voltage vs Load Current



Typical Characteristics



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel;3Kpcs/Reel

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

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