

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant.)
- Internal Short Circuit Current Limiting
- Internal Thermal Overload Protection
- No External Components Required
- Epoxy Meets UL 94 V-0 Flammability Rating

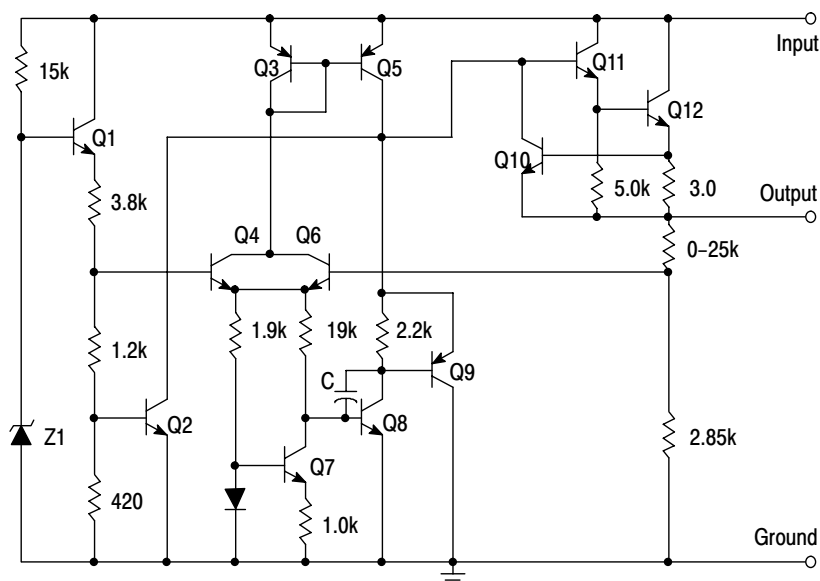
Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_I	30	V
Maximum Output Current	I_O	0.1	A
Power Dissipation	P_d	0.35	W
Operating Junction Temperature	T_{OPR}	-25~125	°C
Storage Temperature Range	T_{STG}	-55~150	°C

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

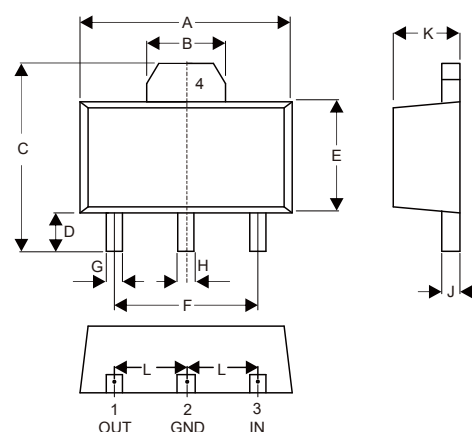
Marking code: 78L05FA

Schematic Diagram



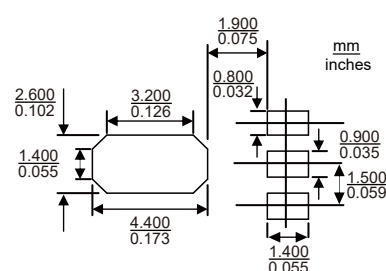
Three-Terminal Low Current Positive Voltage Regulator

SOT-89



DIMENSIONS					NOTE
DIM	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.061		1.55		TYP.
C	0.154	0.171	3.91	4.35	
D	0.031	0.047	0.80	1.20	
E	0.089	0.104	2.25	2.65	
F	0.118		3.00		TYP.
G	0.013	0.020	0.33	0.52	
H	0.015	0.021	0.38	0.53	
J	0.014	0.017	0.35	0.44	
K	0.055	0.063	1.40	1.60	
L	0.059		1.50		TYP.

Suggested Solder Pad Layout



Electrical Characteristics($V_I=10V$, $I_O=40mA$, $C_I=0.33\mu F$, $C_O=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_O	$V_I=7V-20V$ $I_O=1mA-40mA$ $T_J=25^{\circ}C$	4.8	-	5.2	V
		$V_I=10V$ $I_O=100mA$ $T_J=25^{\circ}C$	4.75	-	5.25	V
Load Regulation	ΔV_O	$I_O=1mA-100mA$, $T_J=25^{\circ}C$,	-0.06	-	0.06	V
		$I_O=1mA-40mA$, $T_J=25^{\circ}C$	-0.03	-	0.03	V
Line regulation	ΔV_O	$V_I=7V-20V$, $T_J=25^{\circ}C$	-0.15	-	0.15	V
		$V_I=8V-20V$, $T_J=25^{\circ}C$	-0.1	-	0.1	V
Quiescent Current	I_q	$V_I=10V$, $I_O=40mA$	-	-	5.5	mA
Quiescent Current Change	ΔI_q	$V_I=8V-20V$, $I_O=40mA$	-0.15	-	0.15	mA
		$V_I=10V$, $I_O=1mA-40mA$	-0.1	-	0.1	mA

Curve Characteristics

Fig. 1 - Output Characteristics

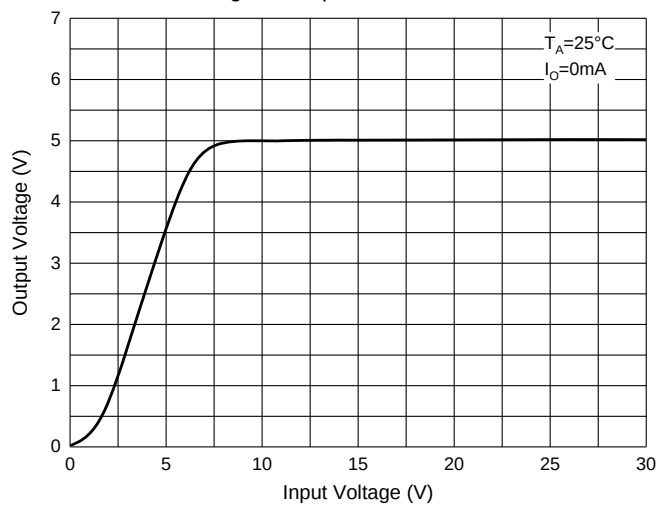


Fig. 2 - Quiescent Current vs Input Voltage

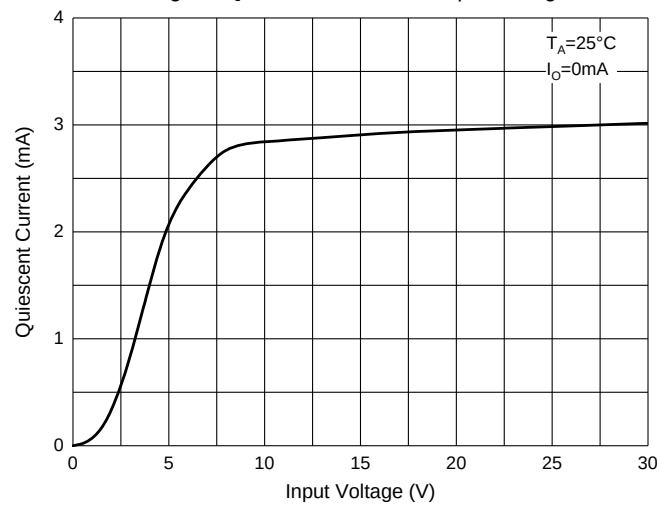


Fig. 3 - Current Cut-off Grid Voltage

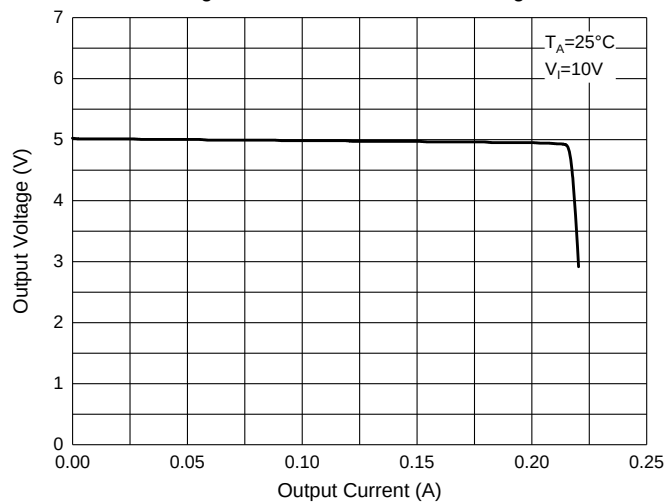
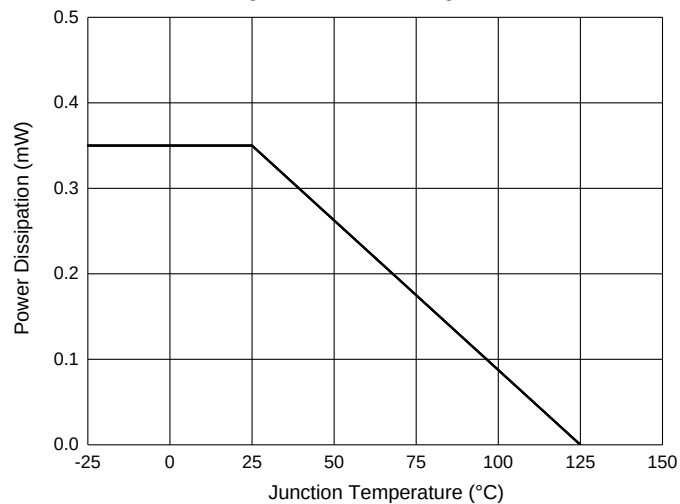


Fig. 4 - Power Derating Curve



Ordering Information

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

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