GP78L05KES

## Three-terminal positive voltage regulator

GP78L05KES

Feature

- Thermal Overload Protection
- Short Circuit Protection
- Output Voltage Of 5V
- Output Current Of 0.1A
- Output Transition Safe-Area Compensation

SOT-89-3L
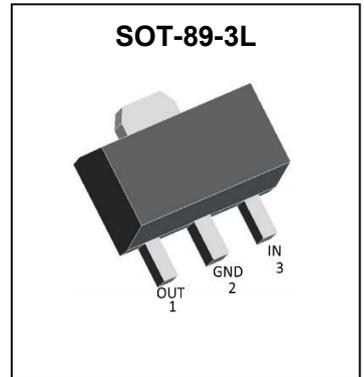
Absolute Maximum Ratings (T$_A$=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Input voltage	V$_i$	30	V
Operating Junction Temperature Range	T$_{OPR}$	0~+125	℃
Storage Temperature Range	T$_{STG}$	0~+125	℃

Electrical Characteristics (T$_A$=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Output voltage	V$_O$	V$_{IN}$=10V, I$_O$=40mA	4.85		5.15	V
		7V≤V$_{IN}$≤20V，I$_O$=1mA	4.82		5.18	V
		V$_{IN}$=10V, I$_O$=100mA	4.82		5.18	V
Load Regulation	|ΔV|	Io =1mA , 7V≤VIN≤20V	-135		135	mV
Line regulation	|ΔV|	1mA≤Io≤100mA, VIN=10V	-54		54	mV
Quiescent Current	I$_Q$	Io =1mA, Vin=8V	0		5.8	mA
Quiescent Current Change	|ΔI$_Q$|	1mA≤Io≤40mA, V$_{IN}$=20V	-0.09		0.09	mA
		8V≤Vin≤20V, Io =1mA	-1.4		1.4	mA
Dropout Voltage	Vo1– Vo2	Vo1@V$_{IN}$=10V,Io=1mA Vo2@V$_{IN}$=10V,Io=100mA	-54		54	mV

Marking:

78L05
XX

Typical Application:

Vi   G P 78L05

Ci 0.33uf   Co 0.1uf   RL
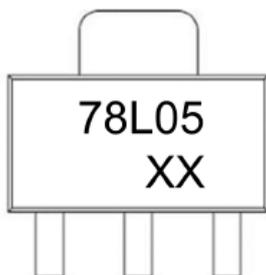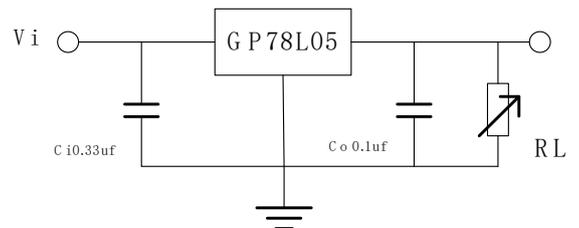
Typical Characteristics

### Output Characteristics
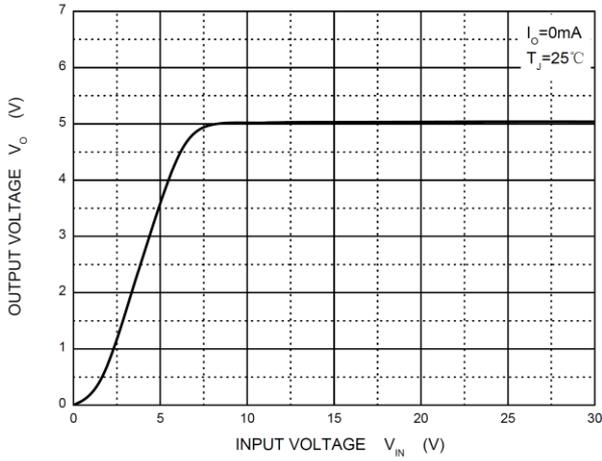
### Dropout Characteristics
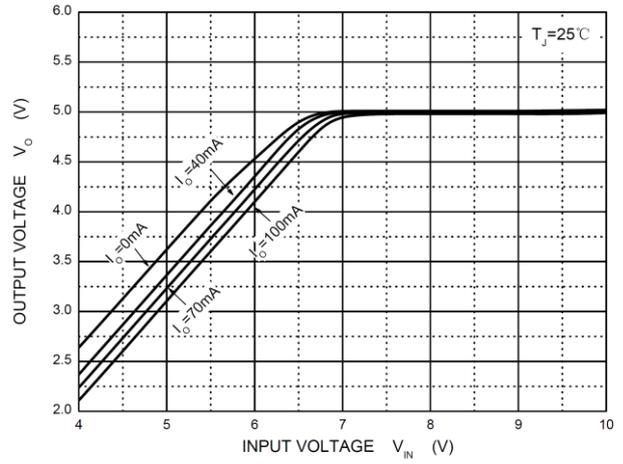
Quiescent Current vs Input Voltage
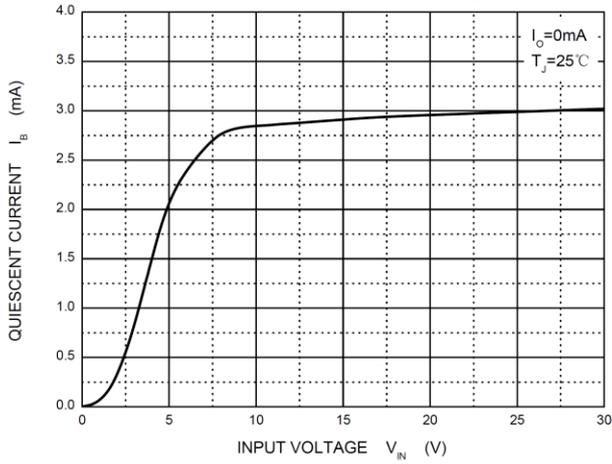
Current Cut-off Grid Voltage
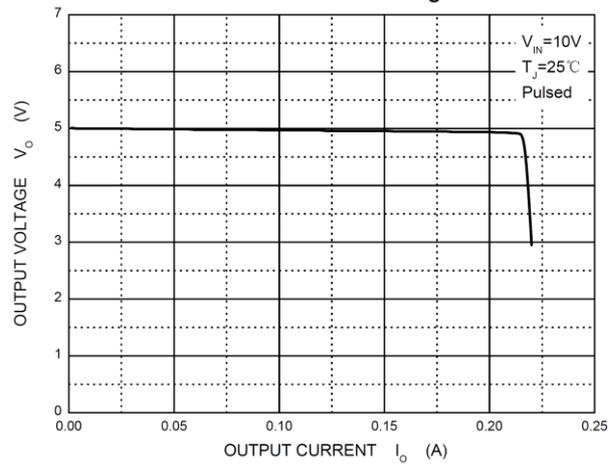
SOT-89-3L Package Outline Dimensions
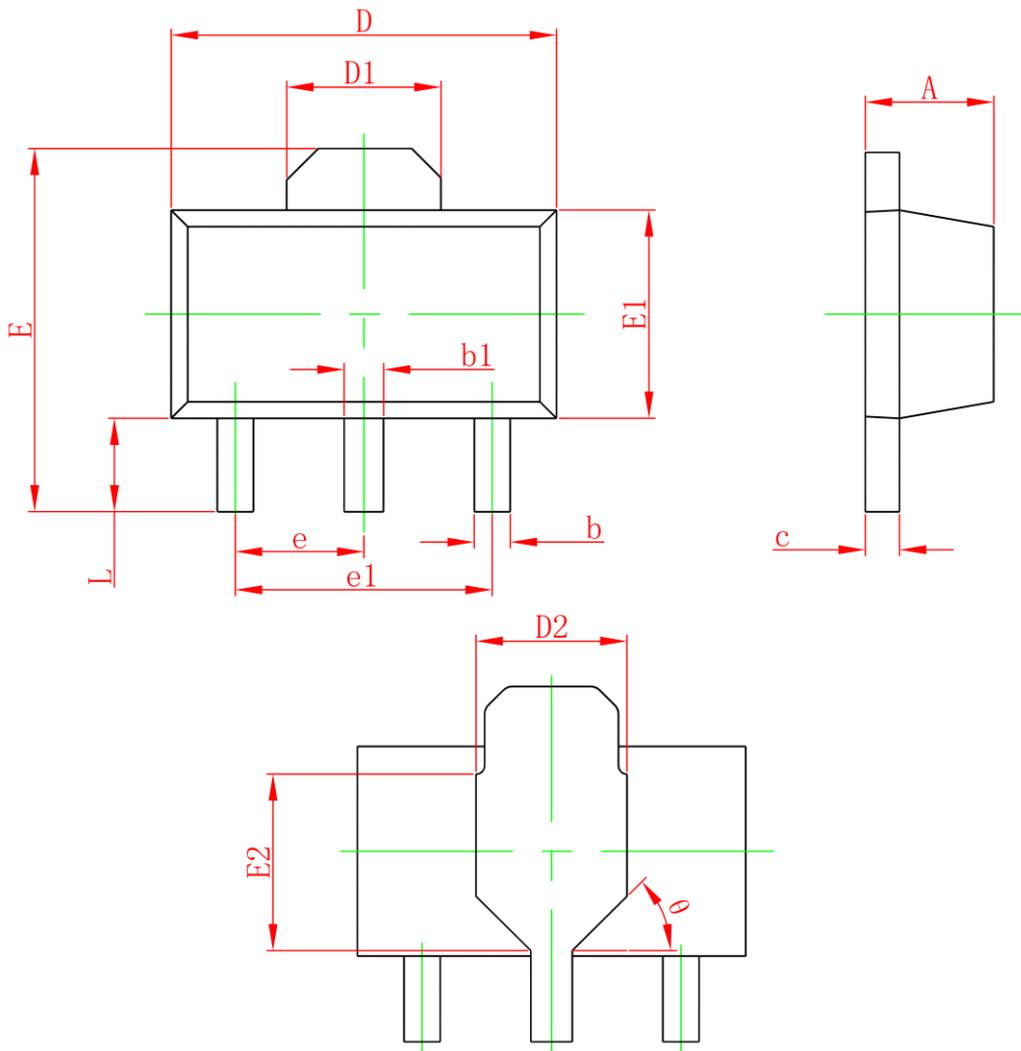
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.380	0.580	0.015	0.023
c	0.350	0.500	0.014	0.020
D	4.400	4.600	0.173	0.181
D1	1.650REF		0.065REF	
D2	1.650	1.850	0.065	0.073
E	3.900	4.400	0.154	0.173
E1	2.300	2.600	0.091	0.102
E2	1.900REF		0.075REF	
e	1.500TYP		0.059TYP	
e1	3.000TYP		0.118TYP	
L	0.900	1.200	0.035	0.047
θ	45°		45°	