



DESCRIPTION

Three-terminal positive voltage regulator.

The A7805 is available in TO-252 package.

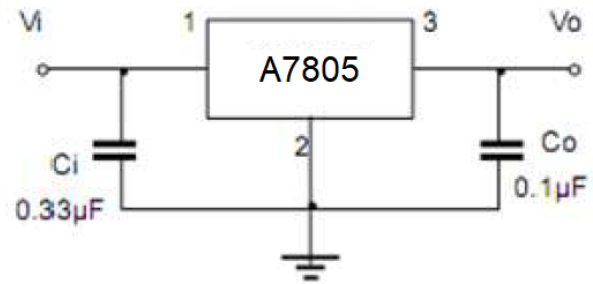
FEATURES

- Maximum Output current I_{CM} : 1A
- Output voltage V_O : 5V
- Total dissipation
 P_D : 1.25W ($T_A=25^\circ\text{C}$)
- Available in TO-252 Package

ORDERING INFORMATION

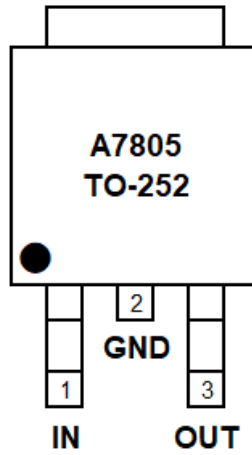
Package Type	Part Number	
TO-252 SPQ: 2,500pcs/Reel	D	A7805DR
		A7805DVR
Note	V: Halogen free Package R: Tape & Reel	
AiT provides all RoHS products		

TYPICAL APPLICATION





PIN DESCRIPTION



Top View

Pin #	Symbol	Function
1	IN	Input
2	GND	Ground
3	OUT	Output



ABSOLUTE MAXIMUM RATINGS

Operating temperature unless otherwise specified

V_I , Input Voltage	35V
T_{OPR} , Operating Junction Temperature Range	0°C ~ +125°C
T_{STG} , Storage Temperature Range	-55°C~+150°C

Stress beyond above listed "Absolute Maximum Ratings" may lead permanent damage to the device. These are stress ratings only and operations of the device at these or any other conditions beyond those indicated in the operational sections of the specifications are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

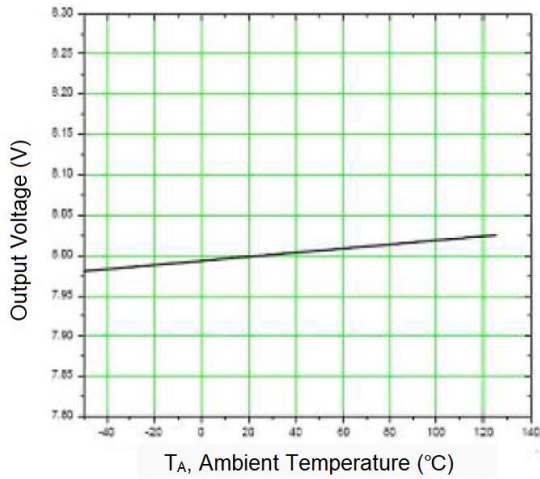
$T_{amb}=25^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	V_O		25°C	4.8	5.0	5.2	V
		$7\text{V} \leq V_I \leq 20\text{V}$, $I_O = 5\text{mA} \sim 350\text{mA}$, $P_O \leq 15\text{W}$	0~125°C	4.75	5.0	5.25	
Load Regulation	ΔV_O	$I_O = 1\text{mA} \sim 0.5\text{A}$	25°C	-	15	100	mV
		$I_O = 5\text{mA} \sim 200\text{mA}$	25°C	-	5	100	
Line Regulation	ΔV_O	$7\text{V} \leq V_I \leq 25\text{V}$, $I_O = 200\text{mA}$		-	3	100	mV
		$8\text{V} \leq V_I \leq 25\text{V}$, $I_O = 200\text{mA}$	25°C	-	1	50	
Quiescent Current	I_Q		25°C	-	4.2	6	mA
Quiescent Current Change	ΔI_Q	$8\text{V} \leq V_I \leq 25\text{V}$, $I_O = 200\text{mA}$	0~125°C	-	-	0.8	mA
		$5\text{mA} \leq I_O \leq 350\text{mA}$	0~125°C	-	-	0.5	
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}$	25°C	-	40	200	uV
Ripple Rejection	RR	$8\text{V} \leq V_I \leq 18\text{V}$, $f = 120\text{Hz}$, $I_O = 300\text{mA}$	0~125°C	62	80	-	dB
Dropout Voltage	V_D	$I_O = 350\text{mA}$	25°C	-	2	2.5	V

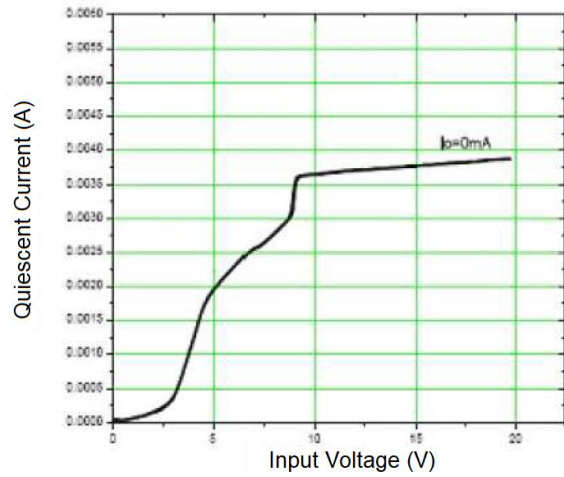


TYPICAL PERFORMANCE CHARACTERISTICS

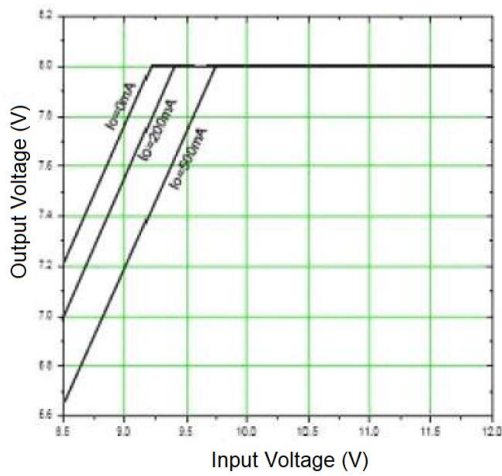
1. Ambient Temperature vs. Output Voltage



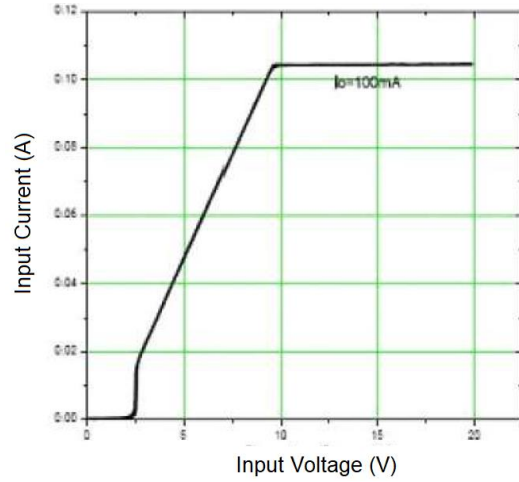
2. Input Voltage vs. Quiescent Current ($T_J=25^{\circ}\text{C}$)



3. Input Voltage vs. Output Voltage ($T_J=25^{\circ}\text{C}$)



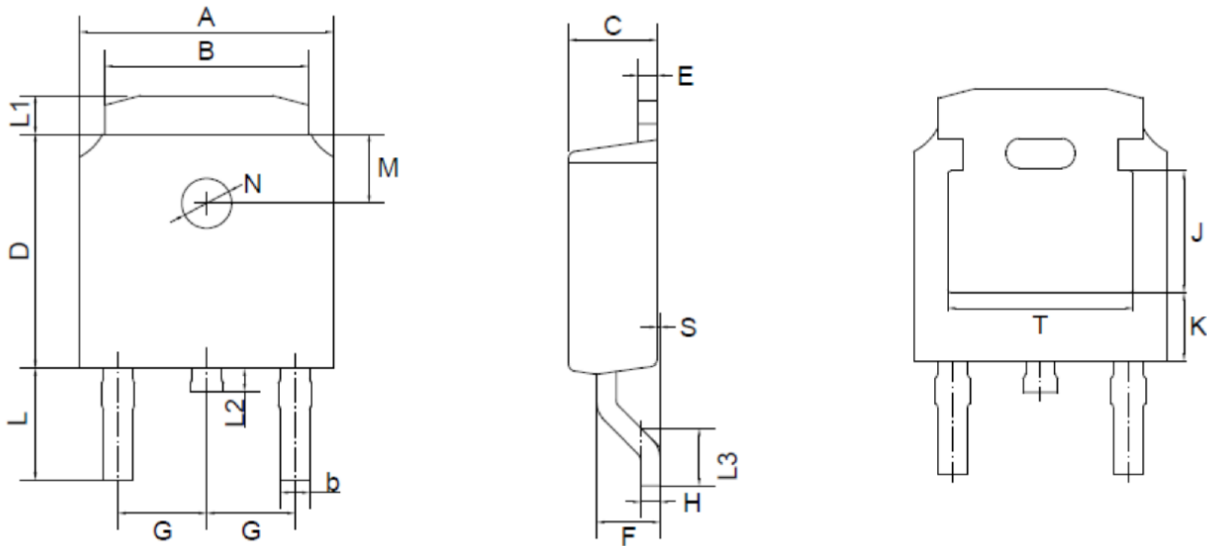
4. Input Voltage vs. Input Current ($T_J=25^{\circ}\text{C}$)





PACKAGE INFORMATION

Dimension in TO-252 (Unit: mm)



Symbol	mm		mil	
	Min	Max	Min	Max
A	6.3	6.7	248	264
B	5.1	5.5	201	217
b	0.3	0.8	12	31
C	2.1	2.5	83	98
D	5.9	6.3	232	248
E	0.4	0.6	16	24
F	1.3	1.8	51	71
G	2.29 TYP		90 TYP	
H	0.45	0.55	18	22
L	2.7	3.1	106	122
L1	0.8	1.2	31	47
L2	0.6	1.0	24	39
L3	1.40	1.75	55	69
S	0.0	0.1	0	4
M	1.8 TYP		71 TYP	
N	1.3 TYP		51 TYP	
J	3.16 REF		124 REF	
K	1.80 REF		71 REF	
T	4.83 REF		190 REF	



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