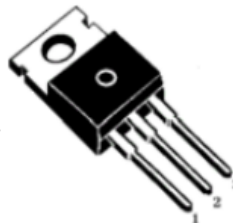


7805-1.5A

3 TERMINAL 1.5A POSITIVE VOLTAGE REGULATORS

FEATURES

1. Internal Thermal Overload Protection.
2. Internal Short Circuit Current Limiting.
3. Output Current up to 1.5A.



1.Input 2.Gnd 3.Output

Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified, $T_{amb}=25\text{ }^{\circ}\text{C}$)

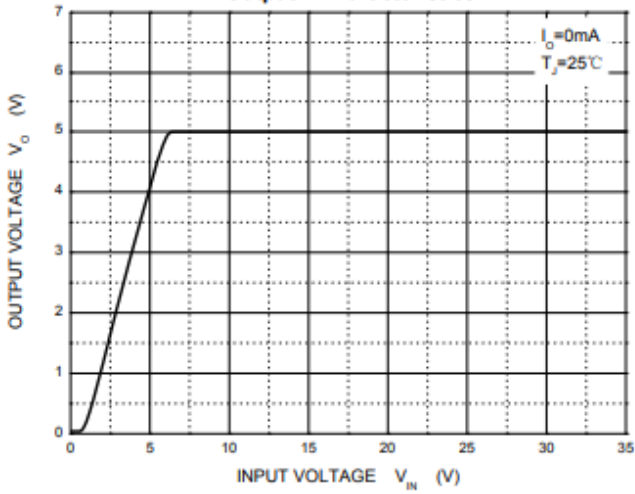
CHARACTERISTICS	SYMBOL	Value	UNITS
Input Voltage	V_{IN}	35	V
Output Current	I_{OUT}	1.5	A
Operating Temperature Range	T_{opr}	-20~125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}\text{C}$

Operating Conditions: $V_i=10\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, $0^{\circ}\text{C}<T_j<125^{\circ}\text{C}$ Unless otherwise specified

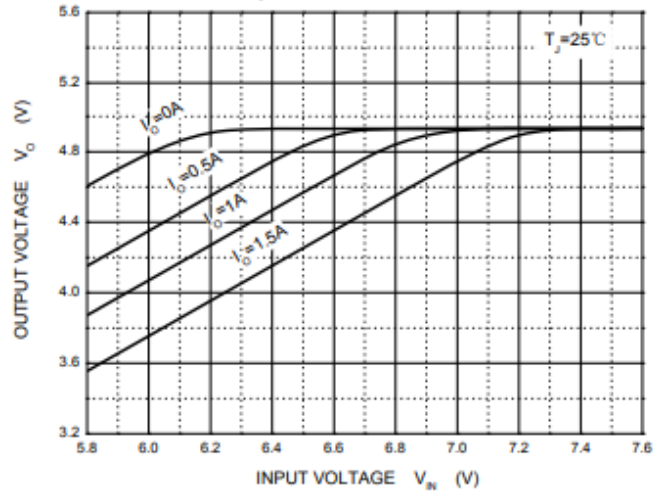
Parameter Name	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_j=25^{\circ}\text{C}$	4.80	5.00	5.20	V
		$7\text{V}\leq V_i\leq 20\text{V}$, $I_o=5\text{mA}\sim 1.0\text{A}$	4.75		5.25	V
Load Regulation	ΔV_o	$T_j=25^{\circ}\text{C}$; $I_o=5\text{mA}\sim 1.5\text{A}$		9	100	mV
		$T_j=25^{\circ}\text{C}$; $I_o=250\text{mA}\sim 750\text{mA}$		4	50	mV
Line Regulation	ΔV_o	$T_j=25^{\circ}\text{C}$; $7\text{V}\leq V_i\leq 25\text{V}$		4	100	mV
		$T_j=25^{\circ}\text{C}$; $8\text{V}\leq V_i\leq 12\text{V}$		1.6	50	mV
Quiescent Current	I_q	$T_j=25^{\circ}\text{C}$; $I_o=0\text{mA}$		5.0	8	mA
Quiescent Current Change	ΔI_q	$7\text{V}\leq V_i\leq 25\text{V}$			1.3	mA
		$5\text{mA}\leq I_o\leq 1.0\text{A}$			0.5	mA
Output Noise Voltage	eN	$f=10\text{Hz}$ to 100kHz , $T_a=25^{\circ}\text{C}$		42		μV
Temperature Coefficient of Output Voltage	$\Delta V_o/\Delta T$	$I_o=5\text{mA}$		0.8		$\text{mV}/^{\circ}\text{C}$
Ripple Rejection Ratio	RR	$8\text{V}\leq V_i\leq 18\text{V}$; $f=120\text{Hz}$; $T_j=25^{\circ}\text{C}$	62	73		dB
Dropout Voltage	V_d	$I_o=1.0\text{A}$, $T_j=25^{\circ}\text{C}$		2		V
Output resistance	R_o	$f=1\text{kHz}$		15		$\text{m}\Omega$
Short circuit current	I_{sc}	$V_i=35\text{V}$, $T_a=25^{\circ}\text{C}$		230		mA
peak current	I_{pk}	$T_j=25^{\circ}\text{C}$		2.2		A

Typical Characteristics

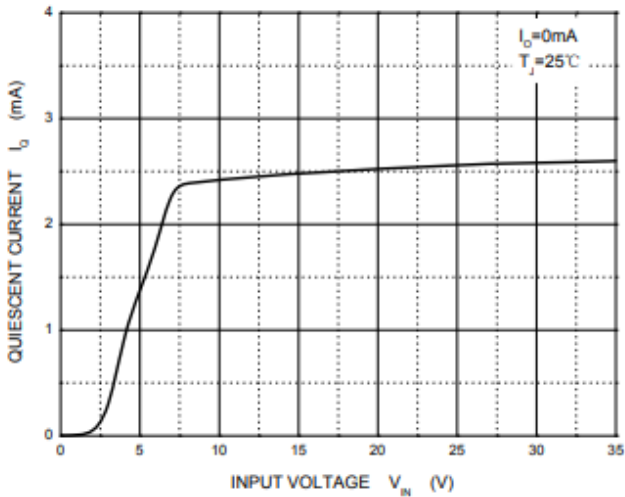
Output Characteristics



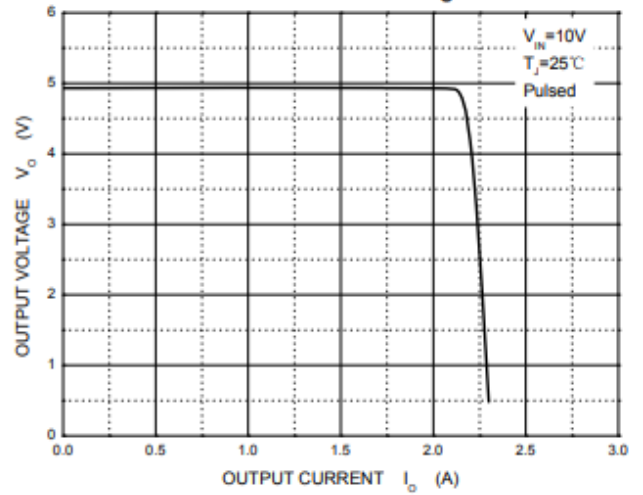
Dropout Characteristics



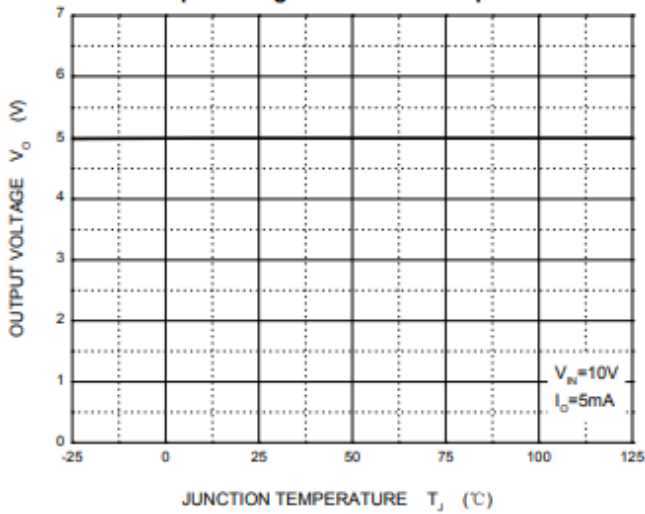
Quiescent Current



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

