HFZT

7905

Three-terminal positive voltage regulator

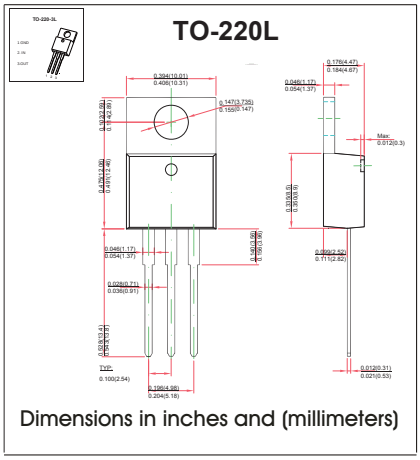
FEATURES

- Maximum output current IOM: 1.5 A
- Output voltageVO: -5V
- Continuous total dissipation

P_D: 1.5 W (T a= 25 ℃)

MECHANICAL DATA

- Case: TO-220 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherw ise specified)

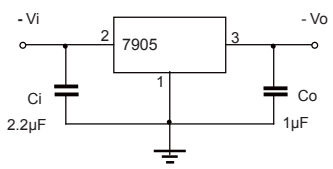
Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance from Junction to Air	$R_{\theta JA}$	83.3	℃/W
Operating Junction Temperature Range	T_{OPR}	0~+150	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE(Vi=-10V,Io=500mA,Ci=2.2μF, Co=1μF, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25℃	-4.8	-5	-5.2	V
		-7V≤V_i≤-20V, Io=5mA-1A	0-125℃	-4.75	-5	-5.25	V
Load Regulation	ΔVo	Io=5mA-1.5A	25℃		15	100	mV
		Io=250mA-750mA	25℃		5	50	mV
Line Regulation	ΔVo	-7V≤V_i≤-25V	25℃		12.5	50	mV
		-8V≤V_i≤-12V	25℃		4	15	mV
Quiescent Current	Iq		25℃		1.5	2	mA
Quiescent Current Change	ΔIq	-7V≤V_i≤-25V	0-125℃			0.5	mA
	ΔIq	5mA≤I_O≤1A	0-125℃			0.5	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		125		μV/Vo
Output Voltage Drift	ΔVo / ΔT	I_O=5mA	0-125℃		-0.4		mV/℃
Ripple Rejection	RR	-8V≤V_i≤-18V,f=120Hz	0-125℃	54	60		dB
Dropout Voltage	Vd	Io=1A	25℃		1.1		V
Peak Current	Ipk		25℃		2.1		A

* Pulse test.

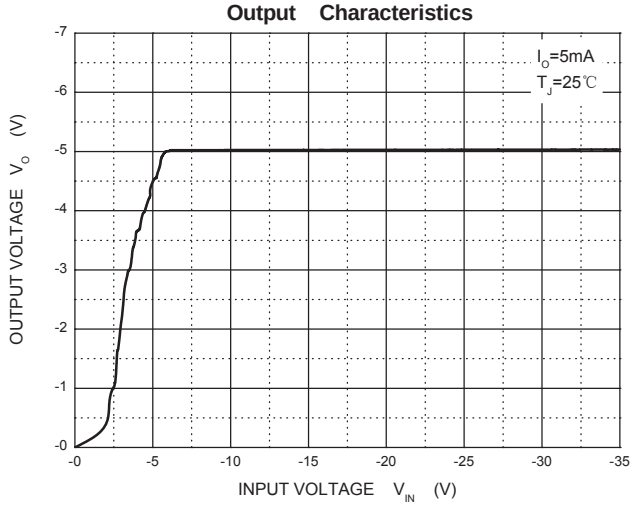
TYPICAL APPLICATION



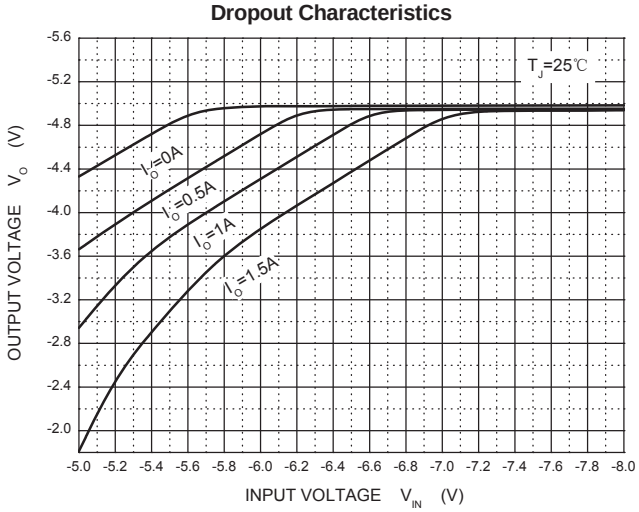
RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

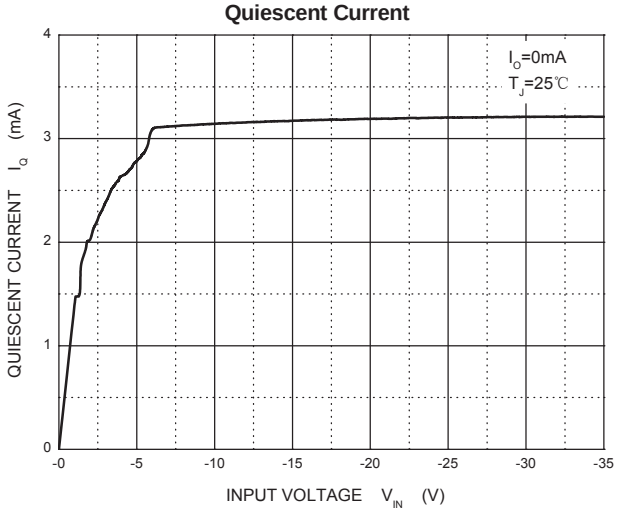
Output Characteristics



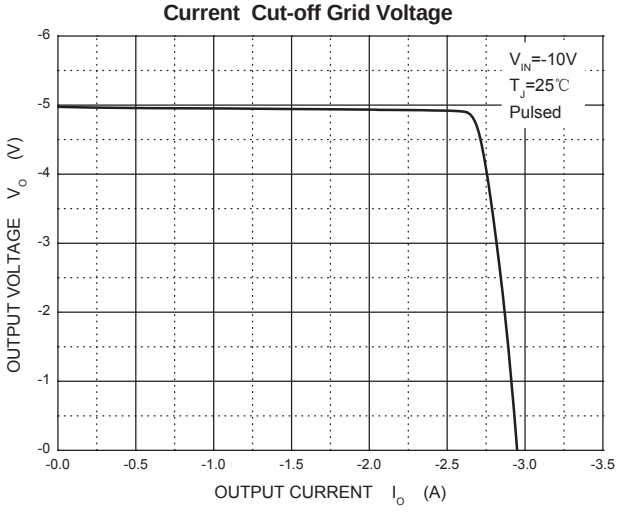
Dropout Characteristics



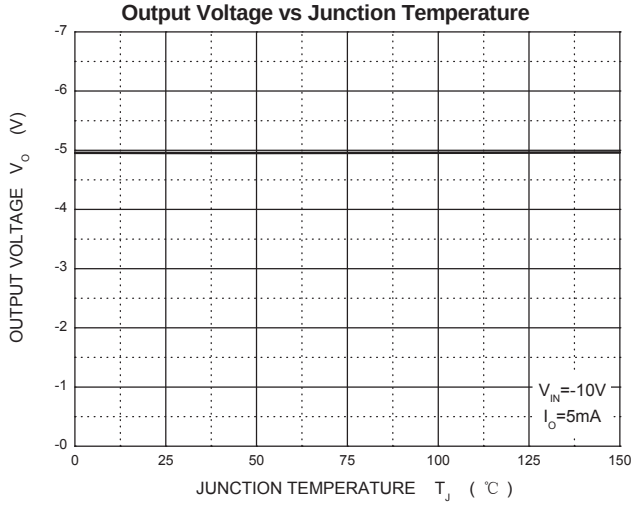
Quiescent Current



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve