

Three-terminal positive voltage regulator

FEATURES

- Maximum output current IOM: 1.5 A
- Output voltage VO: 5V
- Continuous total dissipation PD: 1.5 W ($T_a = 25^\circ\text{C}$)

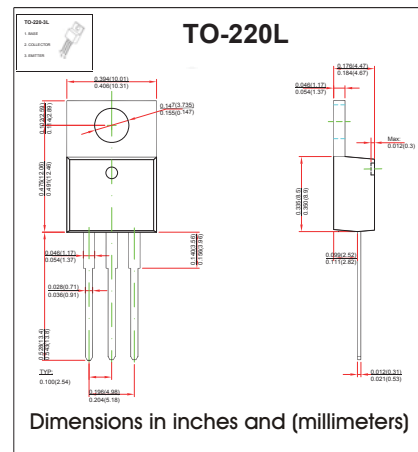
MECHANICAL DATA

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

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance from Junction to Air	$R_{\theta JA}$	66.7	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_{OPR}	-25~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$



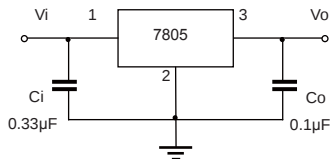
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=10\text{V}$, $I_o=500\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output voltage	Vo		25°C	4.8	5.0	5.2	V
		7V≤Vi≤20V, Io=5mA-1A	-25-125°C	4.75	5.00	5.25	V
Load Regulation	△Vo	Io=5mA-1.5A	25°C		9	100	mV
		Io=250mA-750mA	25°C		4	50	mV
Line regulation	△Vo	7V≤Vi≤25V	25°C		4	100	mV
		8V≤Vi≤12V	25°C		1.6	50	mV
Quiescent Current	Iq		25°C		5	8	mA
Quiescent Current Change	△Iq	7V≤Vi≤25V	-25-125°C		0.3	1.3	mA
		5mA≤Io≤1A	-25-125°C		0.03	0.5	mA
Output Noise Voltage	VN	10Hz≤f≤100KHz	25°C		42		uV
Output voltage drift	△Vo/△T	Io=5mA	-25-125°C		-1.1		mV/°C
Ripple Rejection	RR	8V≤Vi≤18V,f=120Hz	-25-125°C	62	73		dB
Dropout Voltage	Vd	Io=1A	25°C		2		μV/Vo
Output resistance	Ro	f=1KHz	25°C		10		mΩ
Short Circuit Current	Isc		25°C		230		mA
Peak Current	Ipk		25°C		2.2		A

* Pulse test.

RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

