

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 °C)

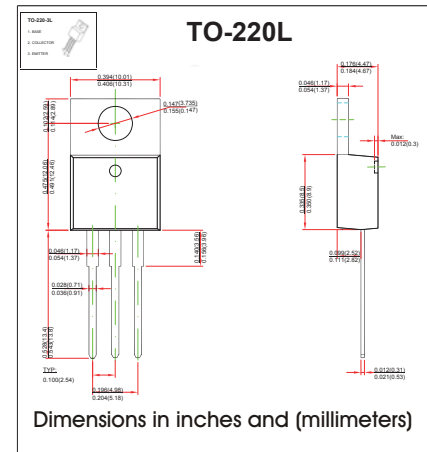
MECHANICAL DATA

- 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	°C/W
Operating Junction Temperature Range	T_{OPR}	-25~+125	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

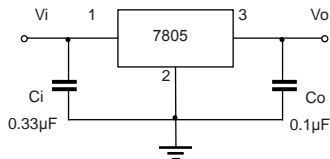


ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE
($V_i=10V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	25°C	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-1A$	-25-125°C	4.75	5.00	5.25
Load Regulation	ΔV_o	$I_o=5mA-1.5A$	25°C	9	100	mV
		$I_o=250mA-750mA$	25°C	4	50	mV
Line regulation	ΔV_o	$7V \leq V_i \leq 25V$	25°C	4	100	mV
		$8V \leq V_i \leq 12V$	25°C	1.6	50	mV
Quiescent Current	I_q	25°C		5	8	mA
Quiescent Current Change	ΔI_q	$7V \leq V_i \leq 25V$	-25-125°C	0.3	1.3	mA
		$5mA \leq I_o \leq 1A$	-25-125°C	0.03	0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$	25°C	42		uV
Output voltage drift	$\Delta V_o / \Delta T$	$I_o=5mA$	-25-125°C	-1.1		mV/°C
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz$	-25-125°C	62	73	dB
Dropout Voltage	V_d	$I_o=1A$	25°C	2		$\mu V/V_o$
Output resistance	R_o	$f=1KHz$	25°C	10		mΩ
Short Circuit Current	I_{sc}	25°C		230		mA
Peak Current	I_{pk}	25°C		2.2		A

* Pulse test.

TYPICAL APPLICATION



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

