

## 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 )

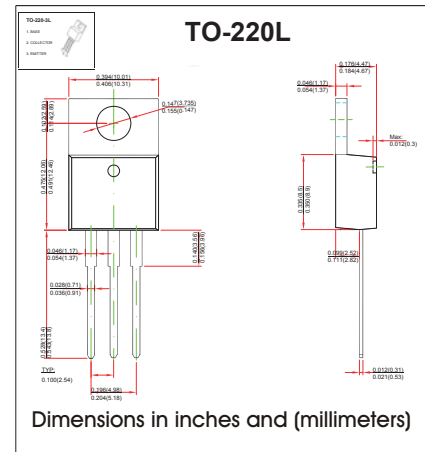
### MECHANICAL DATA

- 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

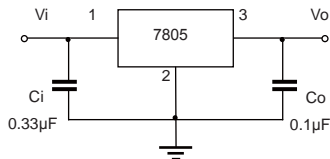


**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE**  
( $V_i=10V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	$V_o$	$25^\circ C$	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	$\Delta V_o$	$I_o = 5mA - 1.5A$	$25^\circ C$	9	100	mV
		$I_o = 250mA - 750mA$	$25^\circ C$	4	50	mV
Line regulation	$\Delta V_o$	$7V \leq V_i \leq 25V$	$25^\circ C$	4	100	mV
		$8V \leq V_i \leq 12V$	$25^\circ C$	1.6	50	mV
Quiescent Current	$I_q$	$25^\circ C$		5	8	mA
Quiescent Current Change	$\Delta I_q$	$7V \leq V_i \leq 25V$	-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	$V_N$	$10Hz \leq f \leq 100KHz$	$25^\circ C$	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	$V_d$	$I_o = 1A$	$25^\circ C$	2		$\mu V / V_o$
Output resistance	$R_o$	$f = 1KHz$	$25^\circ C$	10		mΩ
Short Circuit Current	$I_{sc}$	$25^\circ C$		230		mA
Peak Current	$I_{pk}$	$25^\circ C$		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.

