

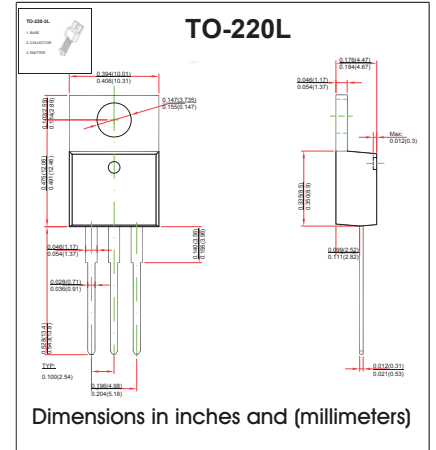
Three-terminal positive voltage regulator

FEATURES

- Maximum output current IOM: 0.5A
- Output voltage VO: 8V
- Continuous total dissipation
PD: 1.5W (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 Ambient	R _{θJA}	66.7	°C/W
Operating Junction Temperature Range	T _{OPR}	-25~+125	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

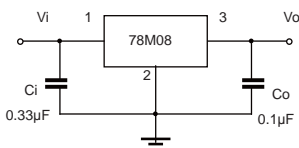
ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

(V_i=14V, I_o=350mA, C_i=0.33μF, C_o=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
			25°C			
Output Voltage	V _o		7.7	8	8.3	V
		10.5≤V _i ≤23V, I _o =5mA-350mA	-25-125°C	7.6	8	8.4
Load Regulation	ΔV _o	I _o =5mA-500mA	25°C	20	160	mV
		I _o =5mA-200mA	25°C	10	80	mV
Line Regulation	ΔV _o	10.5V≤V _i ≤25V, I _o =200mA	25°C	6	100	mV
		11V≤V _i ≤25V, I _o =200mA	25°C	2	50	mV
Quiescent Current	I _q		25°C	4.6	6	mA
Quiescent Current Change	ΔI _q	10.5V≤V _i ≤25V, I _o =200mA	-25-125°C		0.8	mA
		5mA≤I _o ≤350mA	-25-125°C		0.5	mA
Output Noise Voltage	V _N	10Hz≤f≤100KHz	25°C	52		μV/V _o
Ripple Rejection	RR	11.5V≤V _i ≤21.5V, f=120Hz, I _o =300mA	-25-125°C	56	80	dB
Dropout Voltage	V _d	I _o =350mA	25°C	2		V
Short Circuit Current	I _{sc}	V _i =14V	25°C	250		mA
Peak Current	I _{pk}		25°C	0.5		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.

RATINGS AND CHARACTERISTIC CURVES

TYPICAL APPLICATION

