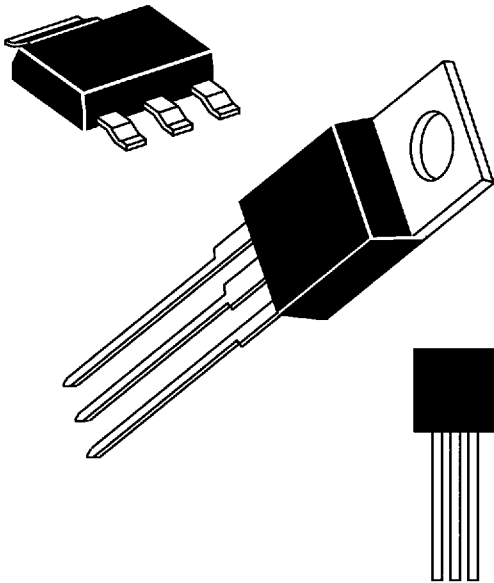


## FEATURES

- External components not required
- Heatsink not required
- 2 simple connections
- 250mA output current
- Generates no EMI or spikes
- TO-92, TO-220 and SOT-223 packages
- Drops 5V to 3V, 3.3V, ADJ

## DESCRIPTION

The EZ5Z3L voltage converters are innovative 2 terminal devices that accept a regulated 5.0V input and reduce it to 3.0V or 3.3V over a range of 5mA to 250mA. The EZ5Z3L-ADJ is an adjustable 3 terminal model allowing output voltage trimming.



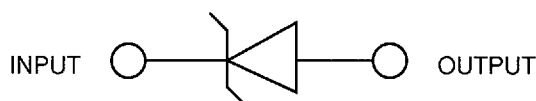
## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Minimum	Maximum	Units
Power Dissipation	$P_D$		0.5	W
Continuous Current	$I_C$		250	mA
Thermal Resistance Junction to Case TO-220/SOT-223 TO-92	$\theta_{JC}$		15 83	$^{\circ}C/W$
Junction to Ambient TO-220/SOT-223 TO-92	$\theta_{JA}$		50/156 200	
Operating Temperature Range	$T_J$	- 40	150	
Storage Temperature Range	$T_{STG}$	- 65		$^{\circ}C$
Lead Temperature (Soldering, 10 Sec. time limit)	$T_{LEAD}$		260	

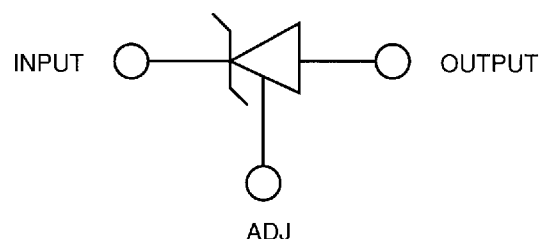
## DEVICE SELECTION GUIDE

DEVICE	$V_{IN}$	$V_{OUT}$	PACKAGE
EZ5Z3L-T3.0	5	3.0	TO-220
EZ5Z3L-T3.3		3.3	
EZ5Z3L-TADJ		ADJ	
EZ5Z3L-S3.0	5	3.0	SOT-223
EZ5Z3L-S3.3		3.3	
EZ5Z3L-SADJ		ADJ	
EZ5Z3L-Z3.0	5	3.0	TO-92
EZ5Z3L-Z3.3		3.3	
EZ5Z3L-ZADJ		ADJ	

## BLOCK DIAGRAMS



EZ5Z3L-3.0 EZ5Z3L-3.3



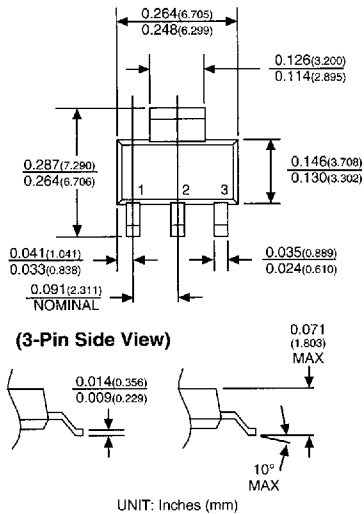
EZ5Z3L-ADJ

## ELECTRICAL CHARACTERISTICS

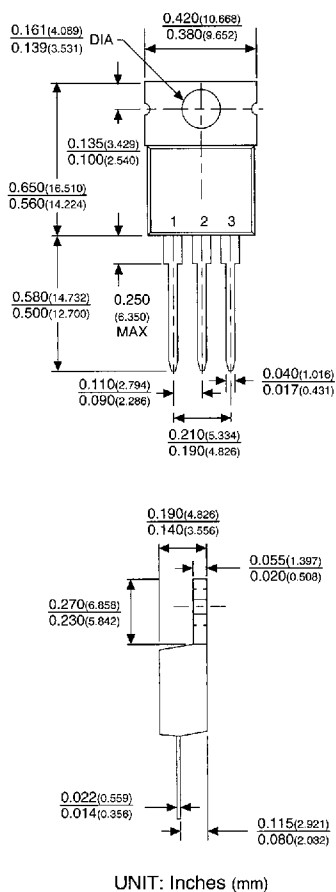
PARAMETER	SYMBOL	Test Conditions			Test Limits			UNITS		
		V <sub>IN</sub>	I <sub>O</sub>	T <sub>J</sub>	MIN	TYP	MAX			
EZ5Z3L-3.0	V <sub>O</sub>	5V	125mA	25°C	2.91	3.00	3.09	V		
				-40 to 125°C	2.85		3.15			
EZ5Z3L-3.3			125mA	25°C	3.20	3.30	3.39			
				-40 to 125°C	3.13		3.46			
EZ5Z3L-ADJ	V <sub>REF</sub>	5V	125mA	25°C	1.21	1.25	1.28	% V <sub>O</sub>		
				-40 to 125°C	1.18		1.31			
Regulation	REG <sub>(LOAD)</sub>				25°C		0.5		1.0	% V <sub>O</sub>
Temp. Coefficient	T <sub>C</sub>			125mA	25 to 125°C		0.005		0.01	% V <sub>O</sub> /°C

## DEVICE OUTLINES

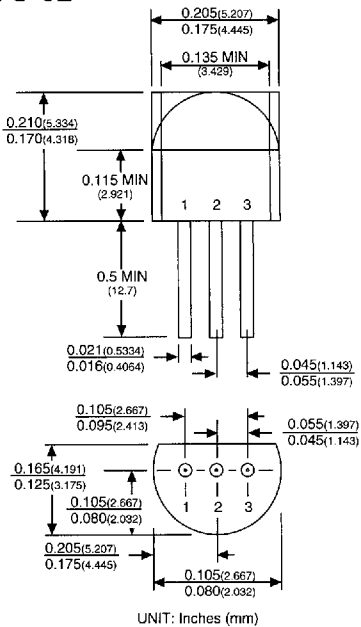
### SOT-223



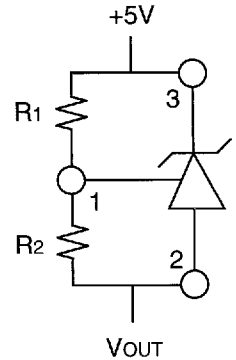
### TO-220



### TO-92



## ADJUSTING EZ5Z3L-ADJ



EZ5Z3L-3.0 EZ5Z3L-3.3 PIN OUT	
PIN	FUNCTION
1	N.C.
2	OUTPUT
3	INPUT
TAB	OUTPUT

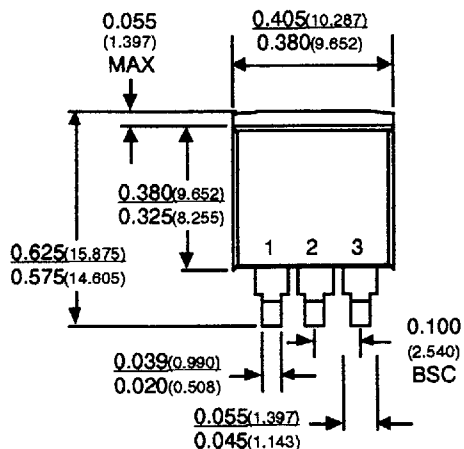
EZ5Z3L-ADJ PIN OUT	
PIN	FUNCTION
1	ADJ
2	OUTPUT
3	INPUT
TAB	OUTPUT

$$V_{\text{DROP}} = V_{\text{REF}}(1 + R_1/R_2)$$

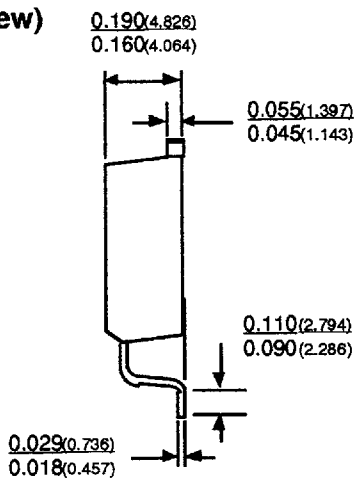
$$V_{\text{OUT}} = V_{\text{IN}} - V_{\text{DROP}}$$

$$R_1 + R_2 \leq \frac{V_{\text{DROP}}}{300\mu\text{A}}$$

## TO-263



(Side View)



UNIT: Inches (mm)

EZ1086	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

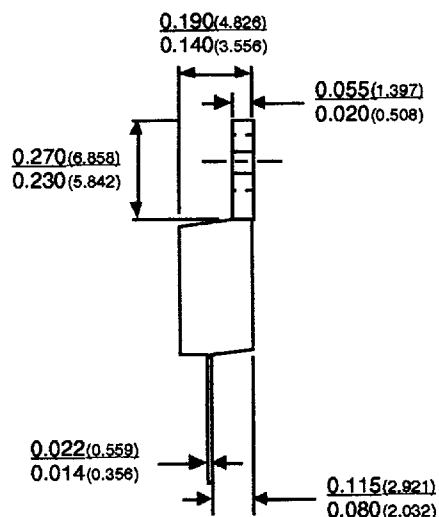
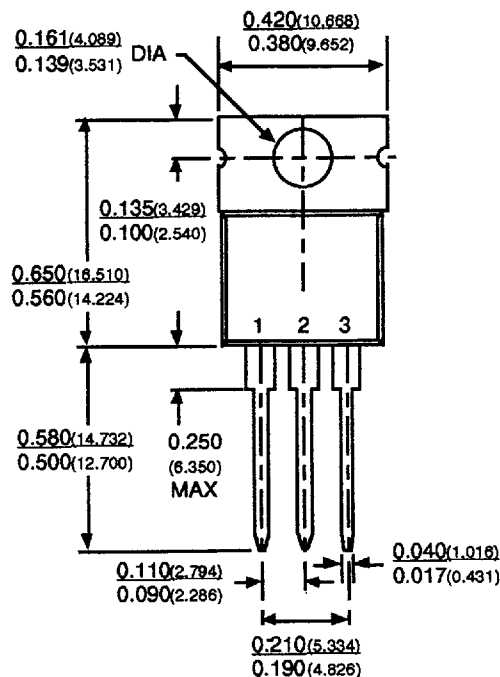
EZ1085	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

EZ1084	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

EZ1083	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

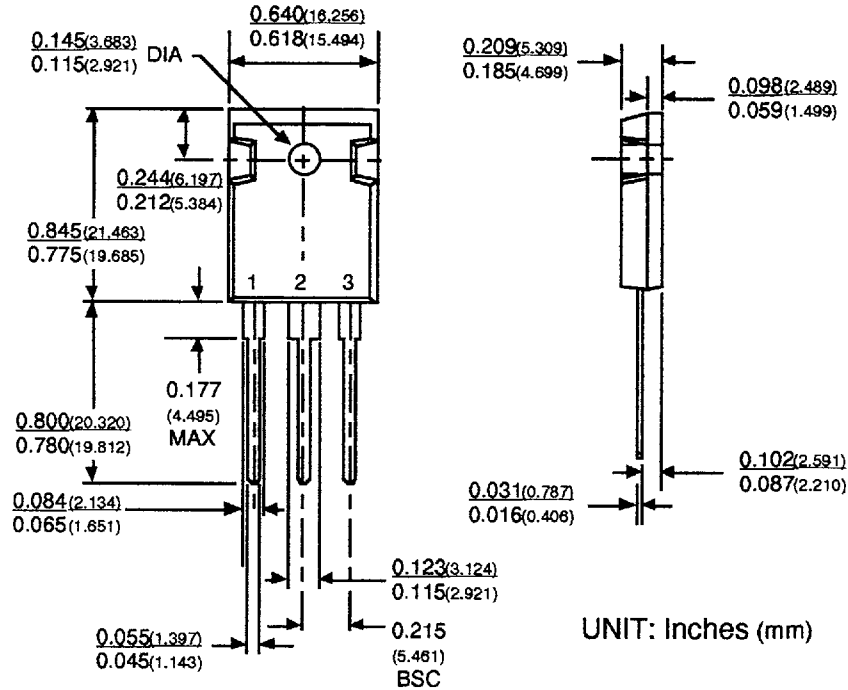
EZ1082	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

## TO-220



UNIT: Inches (mm)

## TO-247



EZ1083	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	

EZ1082	
PIN	FUNCTION
1	ADJ/GND
2	OUTPUT
3	INPUT
TAB IS OUTPUT	