

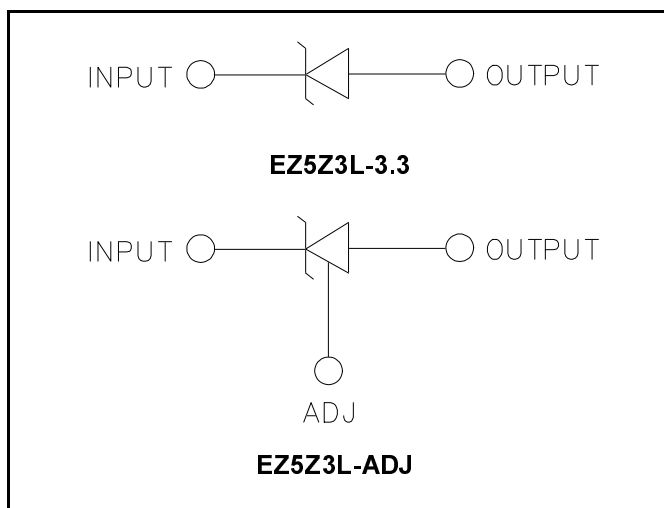
April 13, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:<http://www.semtech.com>

DESCRIPTION

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

SYMBOLS



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 3.3V, ADJ

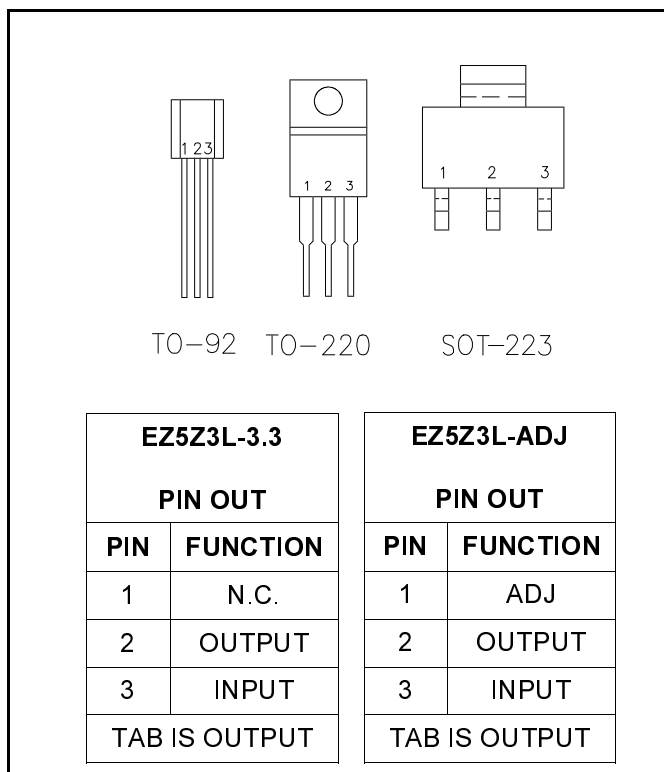
ORDERING INFORMATION

DEVICE	V _{IN}	PACKAGE	V _{OUT} VOLTS
EZ5Z3L - T3.3 EZ5Z3L - TADJ	5	TO-220	3.3 ADJ
EZ5Z3L - S3.3 EZ5Z3L - SADJ	5	SOT-223 ⁽²⁾	3.3 ADJ
EZ5Z3L - Z3.3 EZ5Z3L - ZADJ	5	TO-92 ⁽²⁾	3.3 ADJ

Notes:

- (1) Contact factory for additional voltage options.
 (2) Add suffix 'TR' for tape and reel (SOT-223, TO-92). Add suffix 'TA' for ammo pack (TO-92).

PIN CONFIGURATIONS



ABSOLUTE MAXIMUM RATINGS

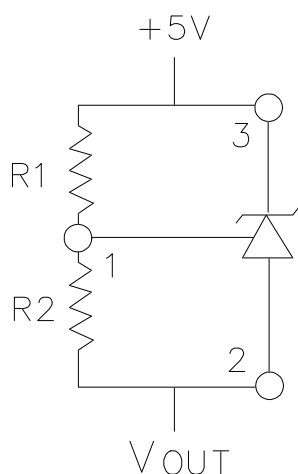
Parameter	Symbol	Maximum	Units
Power Dissipation	P _D	0.5	W
Continuous Current	I _C	250	mA
Thermal Resistance Junction to Case TO-220 SOT-223 TO-92	θ _{JC}	15 15 83	°C/W
Thermal Resistance Junction to Ambient TO-220 SOT-223 TO-92	θ _{JA}	50 156 200	°C/W
Operating Junction Temperature Range	T _J	-40 to 150	°C
Storage Temperature Range	T _{STG}	-65 to 150	°C
Lead Temperature (Soldering) 10 Sec	T _{LEAD}	260	°C

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ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Conditions			Test Limits			Units
		V _{IN}	I _O	T _J	Min	Typ	Max	
EZ5Z3L-3.3	V _O	5V	125mA	25°C	3.20	3.30	3.39	V
			5mA to 250mA	-40 to 125°C	3.13	3.30	3.46	
EZ5Z3L-ADJ	V _{REF}	5V	125mA	25°C	1.21	1.25	1.28	V
			5mA to 250mA	-40 to 125°C	1.18	1.25	1.31	
Regulation	REG _(LOAD)	5V	5mA to 250mA	25°C		0.5	1.0	% V _O
Temp. Coefficient	T _C	5V	125mA	-40 to 125°C		0.005	0.01	% V _O / °C

ADJUSTING EZ5Z3L-ADJ



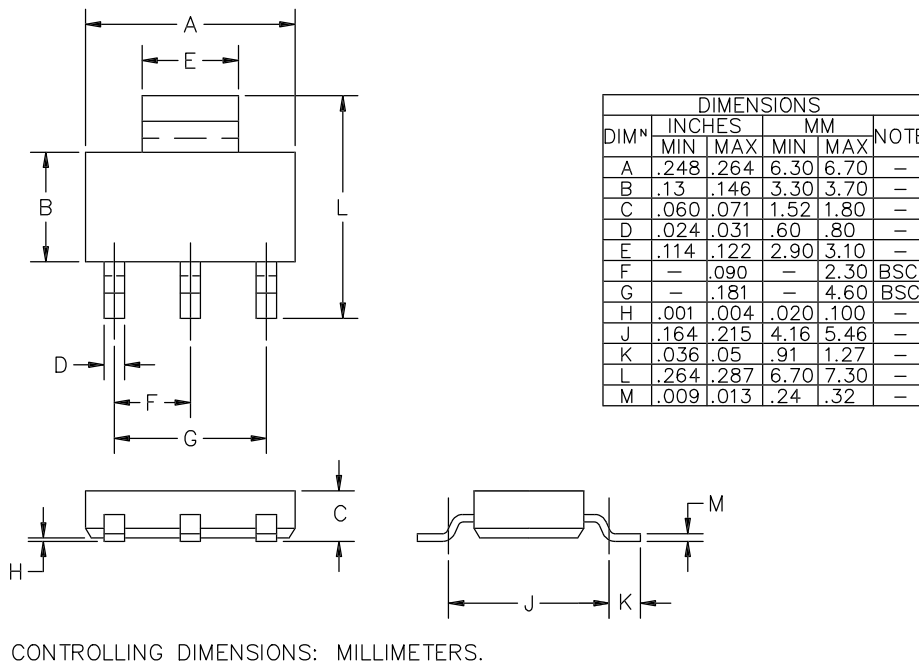
$$V_{\text{DROP}} = V_{\text{REF}} \left(1 + \frac{R_1}{R_2} \right)$$

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

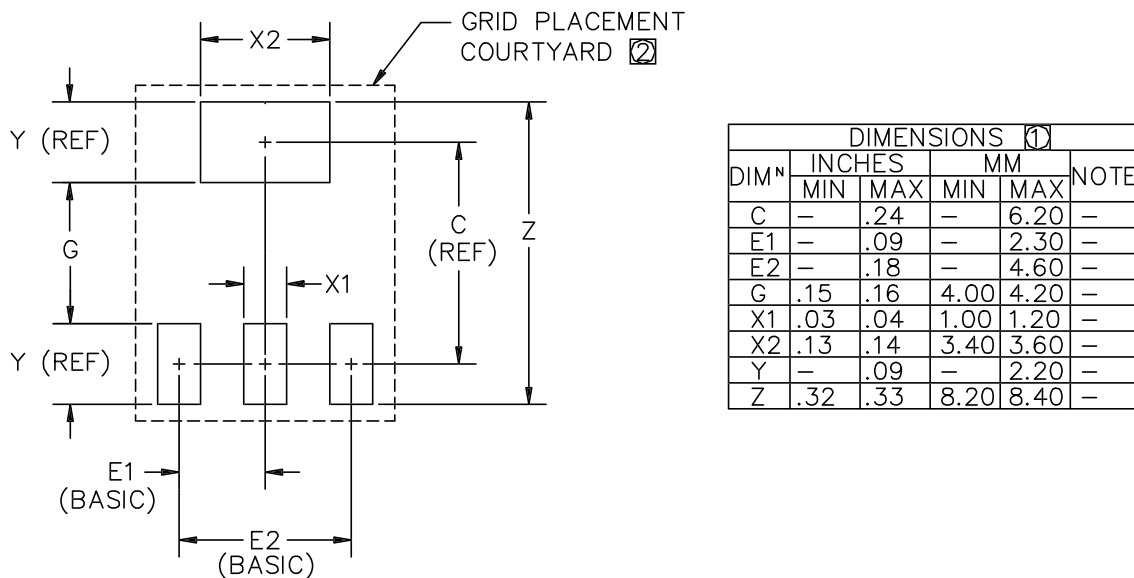
$$R_1 + R_2 \leq \frac{V_{\text{DROP}}}{300\mu\text{A}}$$

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DEVICE OUTLINE - SOT-223



LAND PATTERN - SOT-223

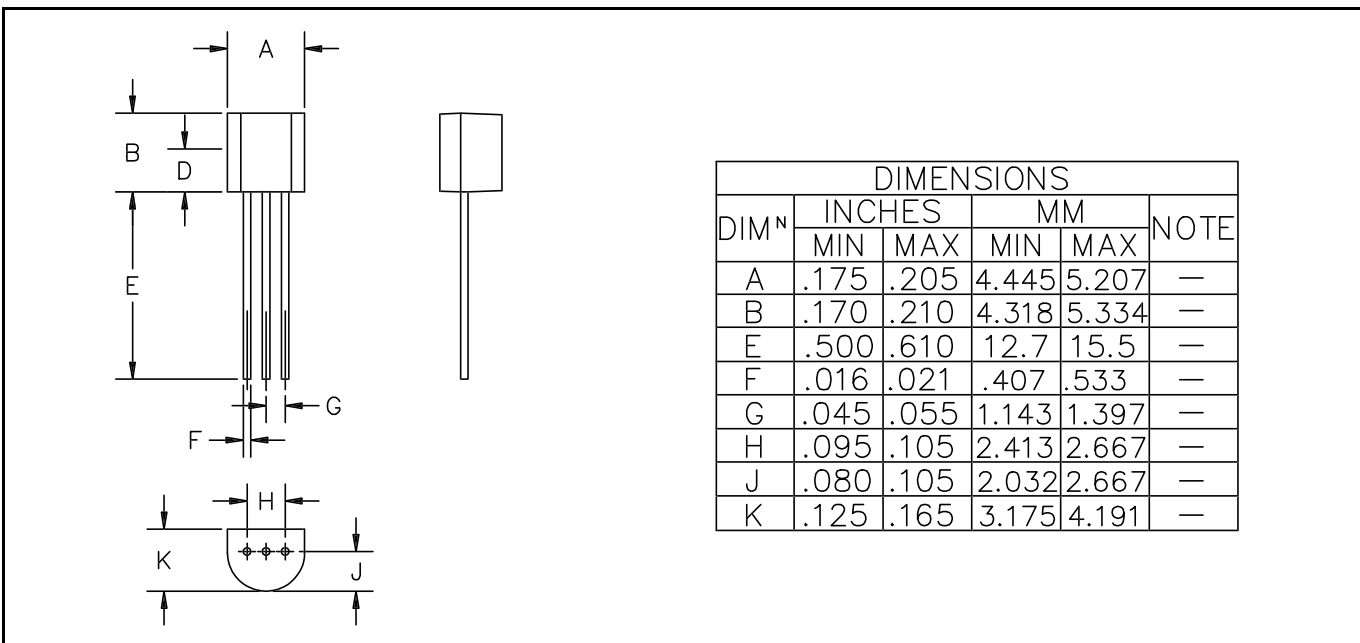


② GRID PLACEMENT COURTYARD IS 18 x 14 ELEMENTS (9 mm X 7mm) IN ACCORDANCE WITH THE INTERNATIONAL GRID DETAILED IN IEC PUBLICATION 97.

① CONTROLLING DIMENSION: MILLIMETERS

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DEVICE OUTLINE - TO-92



DEVICE OUTLINE - TO-220

