

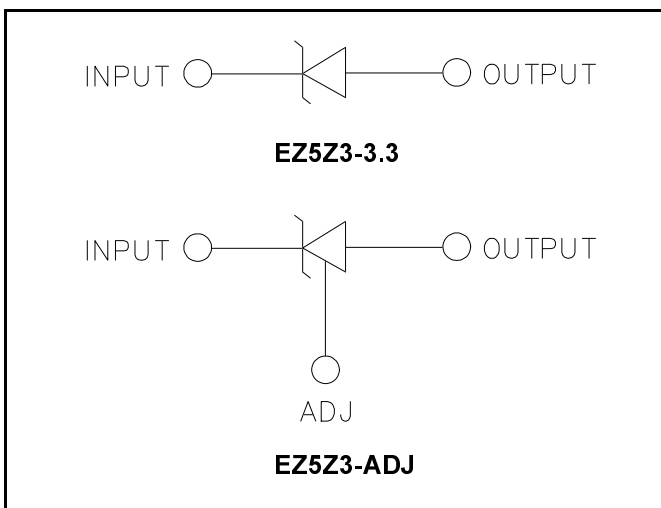
February 18, 1999

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

DESCRIPTION

The EZ5Z3 voltage converters are innovative 2 terminal devices that accept a regulated 5.0V input and reduce it to 3.3V over a range of 10mA to 1A. The EZ5Z3-ADJ is an adjustable 3 terminal model allowing output voltage trimming.

SYMBOL



FEATURES

- External components not required
- Heatsink not required
- 2 simple connections
- 1A output current
- Generates no EMI or spikes
- TO-220 and SOT-223 packages
- Drops 5V to 3.3V, ADJ

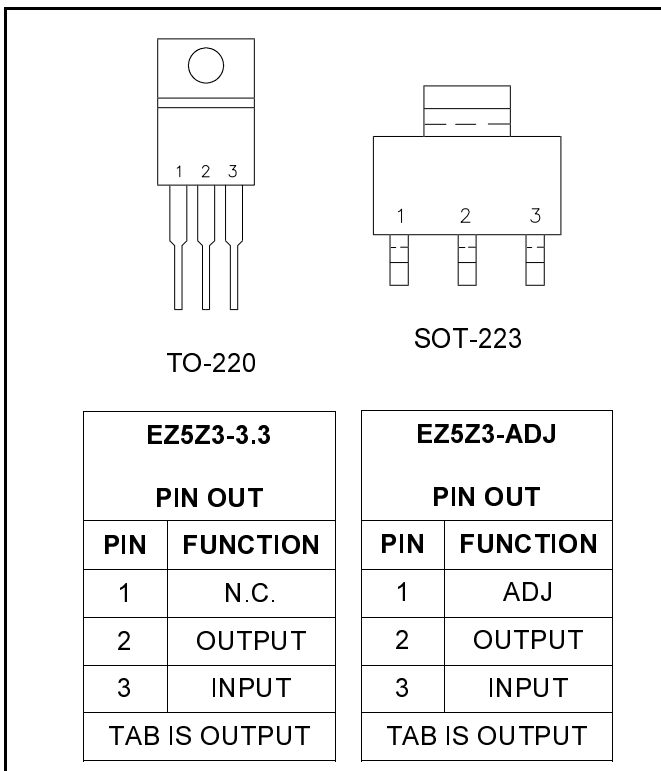
ORDERING INFORMATION

DEVICE	V _{IN}	PACKAGE	V _{OUT} VOLTS
EZ5Z3 - T3.3 EZ5Z3 - TADJ	5	TO-220	3.3 ADJ
EZ5Z3 - S3.3 EZ5Z3 - SADJ	5	SOT-223 ⁽²⁾	3.3 ADJ

Notes:

- (1) Contact factory for additional voltage options.
- (2) Add suffix 'TR' for tape and reel (SOT-223).

PIN CONFIGURATIONS



ABSOLUTE MAXIMUM RATINGS

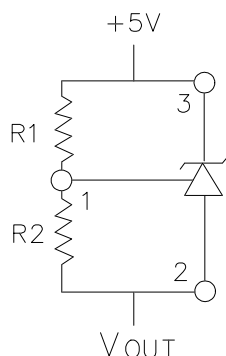
Parameter	Symbol	Maximum	Units
Power Dissipation	P _D	2	W
Continuous Current	I _C	1	A
Thermal Resistance Junction to Case TO-220 SOT-223	θ _{JC}	4 4	°C/W
Thermal Resistance Junction to Ambient TO-220 SOT-223	θ _{JA}	50 156	°C/W
Operating Junction Temperature Range	T _J	-40 to 150	°C
Storage Temperature 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	
EZ5Z3-3.3	V _O	5V	500mA	25°C	3.20	3.30	3.39	V
			10mA to 1A	-40 to 125°C	3.13	3.30	3.46	
EZ5Z3-ADJ	V _{REF}	5V	500mA	25°C	1.21	1.25	1.28	V
			10mA to 1A	-40 to 125°C	1.18	1.25	1.31	
Regulation	REG _(LOAD)	5V	10mA to 1A	25°C		0.5	1.0	% V _O
Temp. Coefficient	T _C	5V	500mA	-40 to 125°C		0.005	0.01	% V _O / °C

ADJUSTING EZ5Z3-ADJ

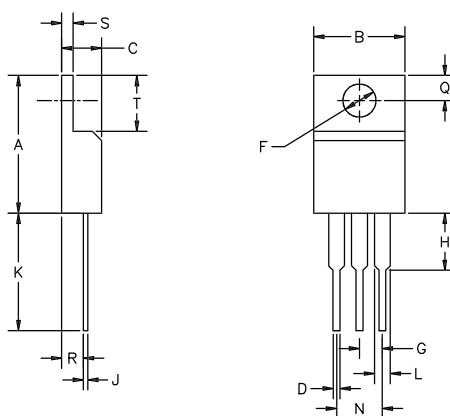


$$V_{\text{DROP}} = V_{\text{REF}} \left(1 + \frac{R_1}{R_2} \right)$$

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

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

DEVICE OUTLINE - TO-220

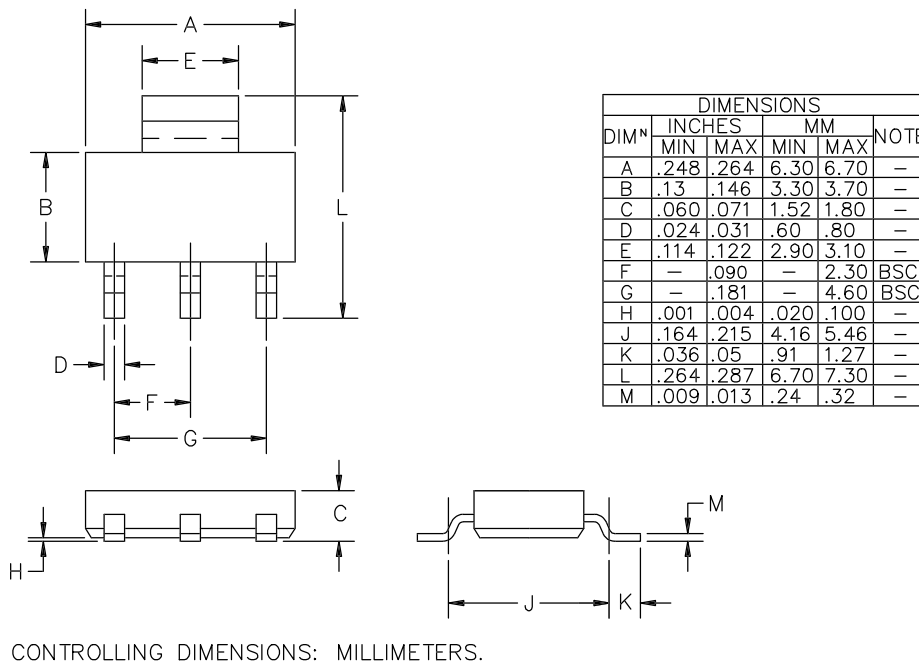


DIMENSIONS					NOTE
DIM ^N	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.560	.650	14.23	16.51	
B	.380	.420	9.66	10.66	
C	.140	.190	3.56	4.82	
D	.020	.045	0.51	1.14	
F	.139	.161	3.54	4.08	
G	.090	.110	2.29	2.79	
H	—	.250	—	6.35	
J	.012	.045	.31	1.14	
K	.500	.580	12.70	14.73	
L	.070	.095	1.77	2.41	
N	.190	.210	4.83	5.33	
Q	.100	.135	2.54	3.42	
R	.080	.115	2.04	2.92	
S	.020	.055	.51	1.39	
T	.230	.270	5.85	6.85	

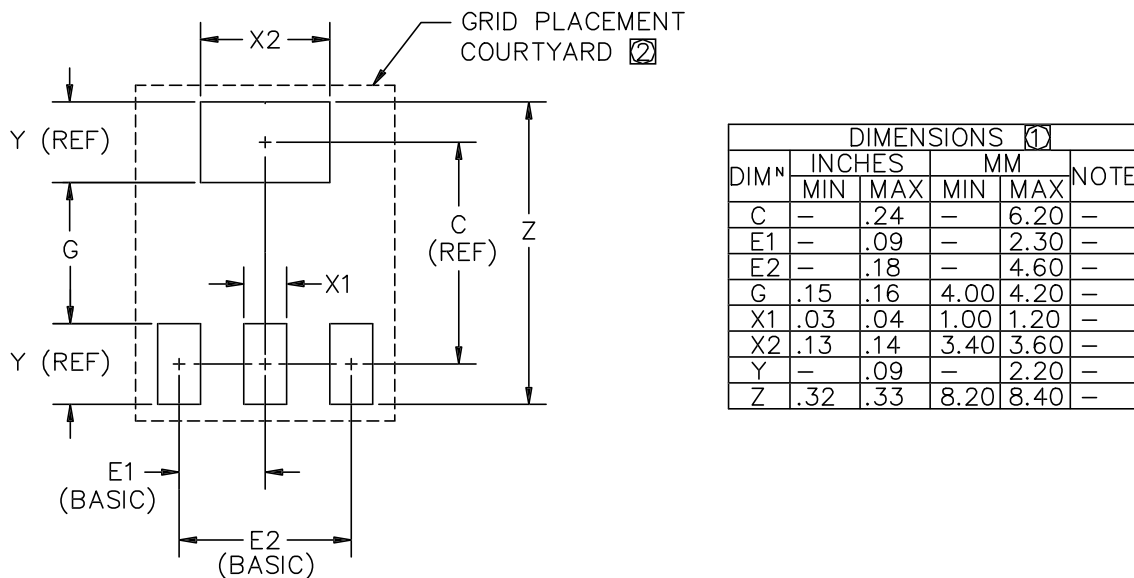
JEDEC TO-220

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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