

1A 5V TO 3.0, 3.3, ADJ EZ DROPPER™

5Z3 SERIES

FEATURES

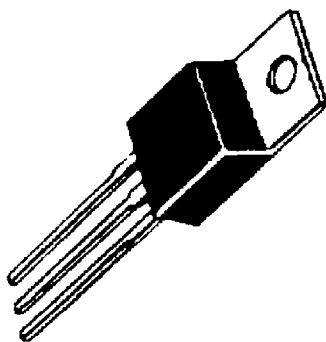
- › External components not required
- › Heatsink not required
- › 2 Simple connections
- › 1A output current
- › Generates no EMI or spikes
- › TO-220 package
- › Drops 5V to 3V

DESCRIPTION

The SC5Z3 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 100mA to 1A. The SC5Z3-TADJ is an adjustable 3 terminal model allowing output trimming with a single resistor.

ABSOLUTE MAXIMUM RATINGS

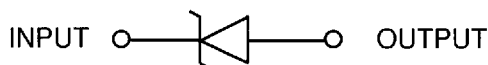
PARAMETER	SYMBOL	MINIMUM	MAXIMUM	UNITS
Power Dissipation	P_D		4	W
Continuous Current	I_C		2	A
Thermal Resistance Junction to Case	θ_{JC}		5	$^{\circ}\text{C/W}$
Junction to Ambient	θ_{JA}		40	$^{\circ}\text{C/W}$
Operating Temperature Range	T_J	- 40	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 65		$^{\circ}\text{C}$
Lead Temperature (Soldering, 10 Sec. Time Limit)	T_{LEAD}		260	$^{\circ}\text{C}$



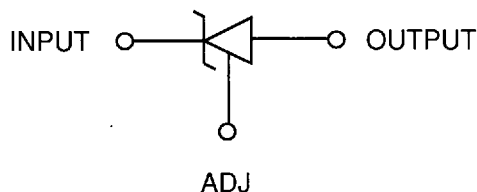
DEVICE SELECTION GUIDE

DEVICE	V_{IN}	V_{OUT}	PACKAGE
SC5Z3-T3.0	5	3.0	TO-220 3 Pin
SC5Z3-T3.3		3.3	
SC5Z3-TADJ		ADJ	

BLOCK DIAGRAMS



SC5Z3-T3.0 SC5Z3-T3.3



SC5Z3-TADJ

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ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	Test Conditions			Test Limits			UNITS
		V_{IN}	I_O	T_J	MIN.	TYP.	MAX.	
Output Voltage ⁽¹⁾⁽²⁾	V_O	5 V	300 mA	25°C	2.97	3.0	3.03	V
SC5Z3-T3.0					3.27	3.3	3.33	
SC5Z3-T3.3					2.97	3.0	3.03	
Regulation ⁽²⁾	$REG_{(LOAD)}$	5 V	300mA to 1A				- 3	% V_O
			300 to 100mA				+ 3	
Temperature Coefficient	T_C		300mA	25 - 125°C			0.03	% V_O / °C

(1) Nominal output voltages are specified under Device Selection Guide.

(2) Low duty cycle pulse testing with Kelvin connections required. Die temperature changes must be accounted for separately.

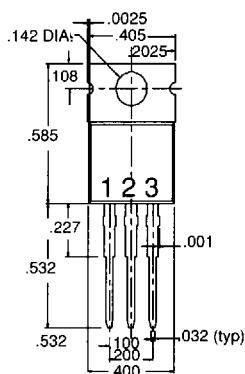
(3) Adjust Pin open.

DEVICE OUTLINE

SC5Z3-T3.0 SC5Z3-T3.3

PIN OUT

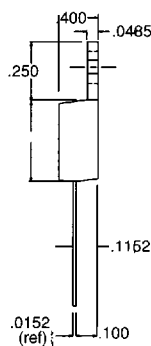
PIN	FUNCTION
1	N.C.
2	INPUT
3	OUTPUT
TAB	INPUT



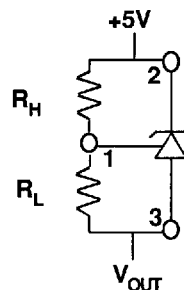
SC5Z3-TADJ

PIN OUT

PIN	FUNCTION
1	ADJ
2	INPUT
3	OUTPUT
TAB	INPUT



ADJUSTING SC5Z3-TADJ FOR 2.7V OR 3.3V WITH A SINGLE RESISTOR



FOR A HIGHER V_{OUT} USE R_H

FOR A LOWER V_{OUT} USE R_L

V_{OUT}	R_L	R_H
2.7V	280Ω	NONE
3.3V	NONE	60Ω