

## DESCRIPTION

The RS432 series are three-terminal adjustable regulators with guaranteed thermal stability over applicable temperature ranges. The output voltage may be set to any value between  $V_{REF}$  (approximately 1.24 volts) and 18 volts with two external resistors. These devices have a typical dynamic output impedance of  $0.2\Omega$ . Active output circuitry provides a very sharp turn-on characteristic, making these devices excellent replacement for zener diodes in many applications. The RS432 is available in a small SOT-23 and TO-92 packages.

## FEATURES

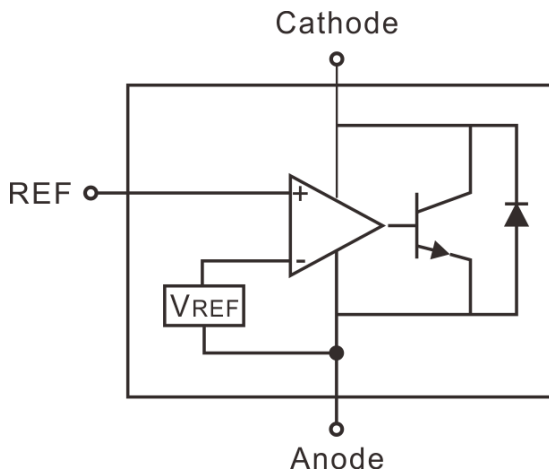
- Programmable precise output voltage from 1.24V to 16V
- High stability under capacitive load
- Low dynamic output resistance:  $0.2\Omega$  typical
- Fast turn on response
- Low output noise
- Wide operating range of  $-40$  to  $125^\circ\text{C}$
- Low equivalent full-range temperature coefficient with  $50\text{ppm}/^\circ\text{C}$  typical
- SOT-23 and TO-92 packages
- RoHS compliant and 100% lead (Pb)-free

## APPLICATIONS

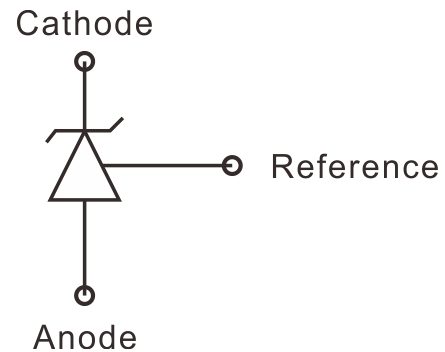
- Opto-coupler linearization
- Linear regulators
- Improved zener
- Variable reference

## BLOCK DIAGRAM

### FUNCTIONAL BLOCK DIAGRAM



### SYMBOL



## APPLICATION CIRCUITS

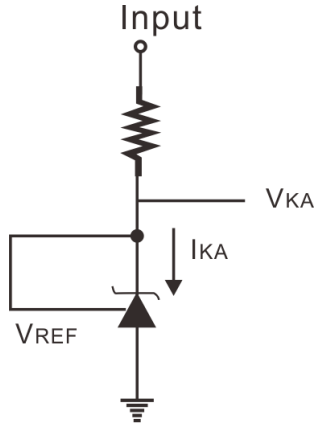
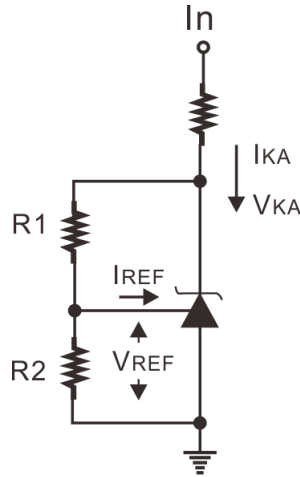


Fig 1. Test Circuit for  $V_{KA} = V_{REF}$



Note:  $V_{KA} = V_{REF}(1 + R1/R2) + I_{REF} \times R1$

Fig 2. Test Circuit for  $V_{KA} > V_{REF}$

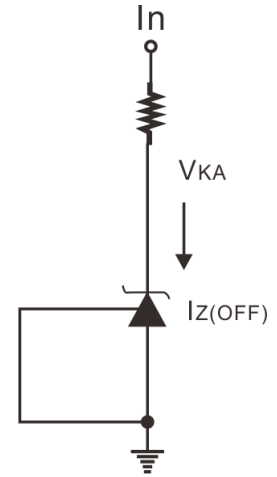


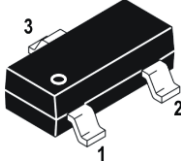
Fig 3. Test Circuit for Off-State Current

## ORDERING INFORMATION

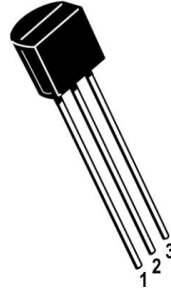
Device	Device Code
RS432 X YY Z	<p><b>X</b> is Reference voltage precision designator:</p> <p>B: 1.24V <math>\pm</math>1.0%</p> <p>C: 1.24V <math>\pm</math>0.5%</p> <p><b>YY</b> is package designator :</p> <p>N: SOT-23</p> <p>A: TO-92</p> <p><b>Z</b> is Lead Free designator :</p> <p>P: Commercial standard, Lead (Pb) Free and Phosphorous (P) Free package</p>

# PIN ASSIGNMENTS

SOT-23



TO-92



# PIN DESCRIPTION

Description	Pin No.	
	SOT-23	TO92
REFERENCE	1	1
ANODE	3	2
CATHODE	2	3

## **IMPORTANT NOTICE**

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