

# KA33V

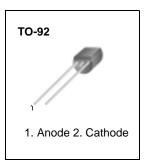
## Voltage Stabilizer

#### **Features**

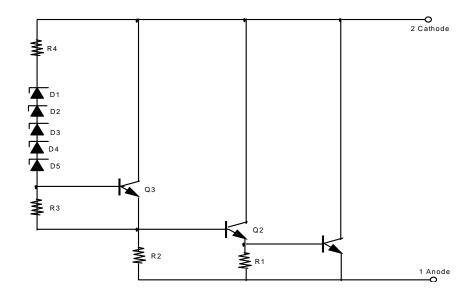
- Low Temperature Coefficient
- Low Dynamic Resistance
- Typical Reference Voltage of 33V

### **Description**

The KA33V is a monolithic integrated voltage stabilizer especially designed as voltage supplier for electronic tuners.



### **Schematic Diagram**



## Absolute Maximum Ratings (T<sub>A= 25°C)</sub>

Parameter	Symbol	Value	Unit
Zener Current	Iz	10	mA
Power Dissipation (T <sub>A</sub> = 75°C)	PD	200	mW
Operating Ambient Temperature Range	TOPR	-20 ~ 75	°C
Storage Temperature Range	TSTG	-40 ~ 125	°C

## Electrical Characteristics (TA = 25°C)

Parameter	Symbol	Conditions	Min.	Тур.	Max.	Unit
Stabilized Voltage	Vz	$I_Z = 5mA$	31		35	V
Stabilized Voltage-Temperature Drift	ΔV <u>Z</u> /ΔΤ	Iz = 5mA T <sub>A</sub> = -20 to 75°C	-1	0	1	mV/°C
Dynamic Resistance	Rz	Iz = 5mA, f = 1KHz	-	10	25	-

## **Measuring Circuits**

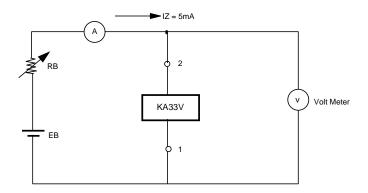
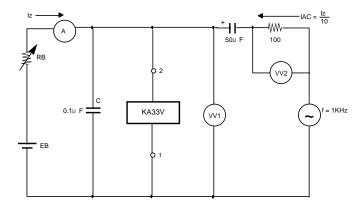


Figure 1. Measuring Circuit for Stabilized Voltage Vz



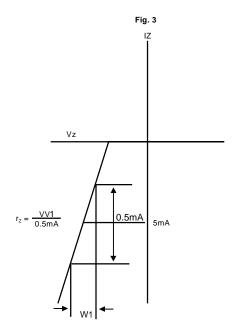
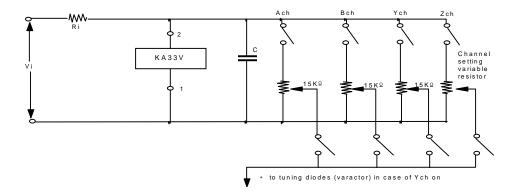
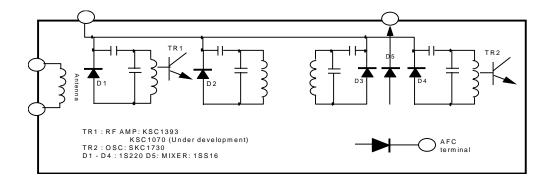


Figure 2. Measuring Circuit for Dynamic Resistance

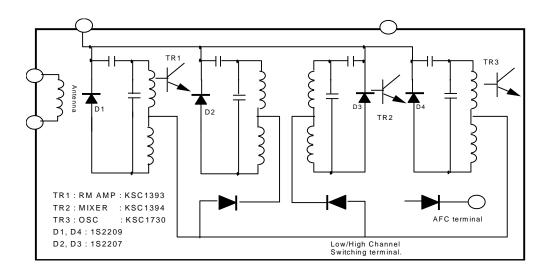
### **Typical Application**



### 1) UHF Tuner



### 2) VHF Tuner



### **Power-temperature Derating Durve Typical Characteristic Curves**

 $(T_A = 25^{\circ}C)$ 

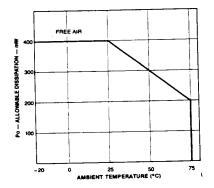


Figure 7. Allowable Dissipation vs.

Amblent Temperature

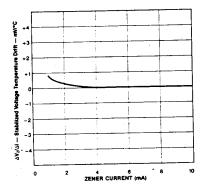


Figure 9. Stabilized Voltage Temperature Drift vs. Zener Current

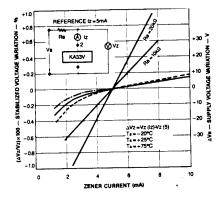


Figure 11. Stabilized Voltage Variation & Supply Voltage Variation vs. Zener Current

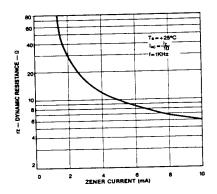


Figure8. Dynamic Resistance vs. Zener Current

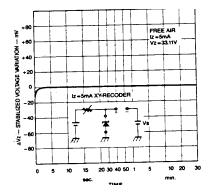


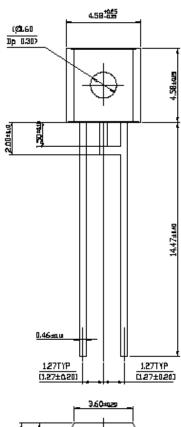
Figure 10. Stabilized Voliage Variation vs. Time

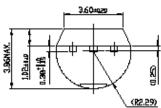
### **Mechanical Dimensions**

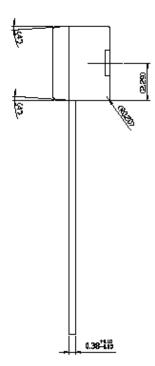
### **Package**

#### **Dimensions in millimeters**

**TO-92** 







## **Ordering Information**

Product Number	Package	Operating Temperature
KA33V	TO-92	

#### **DISCLAIMER**

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