

KA33V

Voltage Stabilizer

Features

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

Description

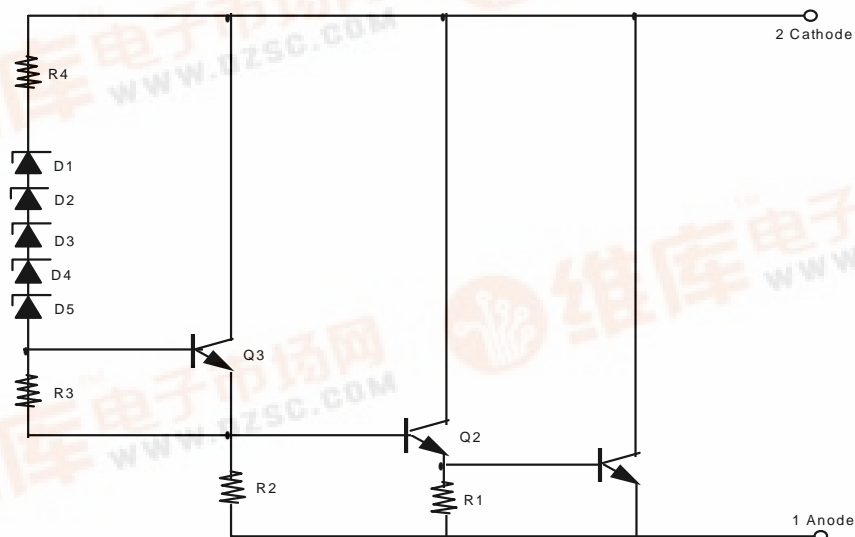
The KA33V is a monolithic integrated voltage stabilizer especially designed as voltage supplier for electronic tuners.

TO-92



1. Anode 2. Cathode

Schematic Diagram



Absolute Maximum Ratings (T_A = 25°C)

Parameter	Symbol	Value	Unit
Zener Current	I _Z	10	mA
Power Dissipation (T _A = 75°C)	P _D	200	mW
Operating Ambient Temperature Range	T _{OPR}	-20 ~ 75	°C
Storage Temperature Range	T _{STG}	-40 ~ 125	°C

Electrical Characteristics (T_A = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Stabilized Voltage	V _Z	I _Z = 5mA	31		35	V
Stabilized Voltage-Temperature Drift	ΔV _Z /ΔT	I _Z = 5mA T _A = -20 to 75°C	-1	0	1	mV/°C
Dynamic Resistance	R _Z	I _Z = 5mA, f = 1KHz	-	10	25	-

Measuring Circuits

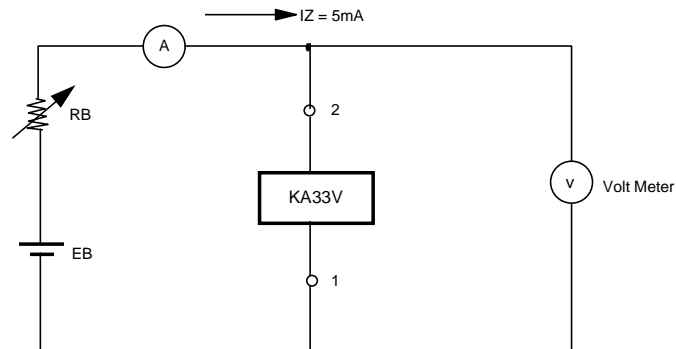


Figure 1. Measuring Circuit for Stabilized Voltage V_z

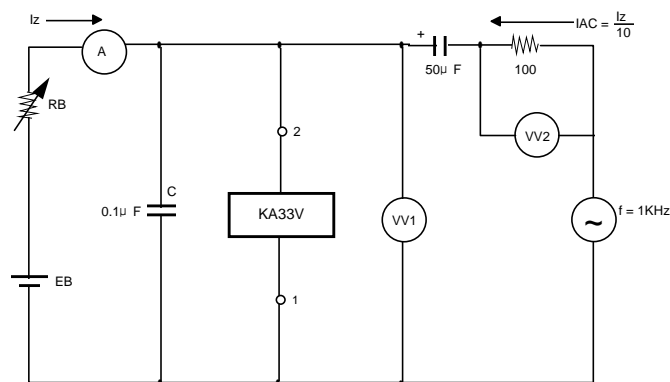


Fig. 3

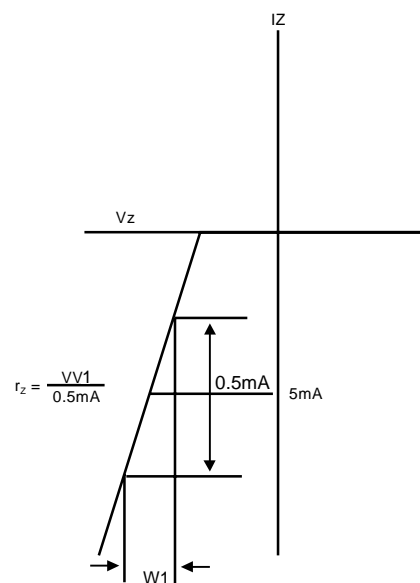
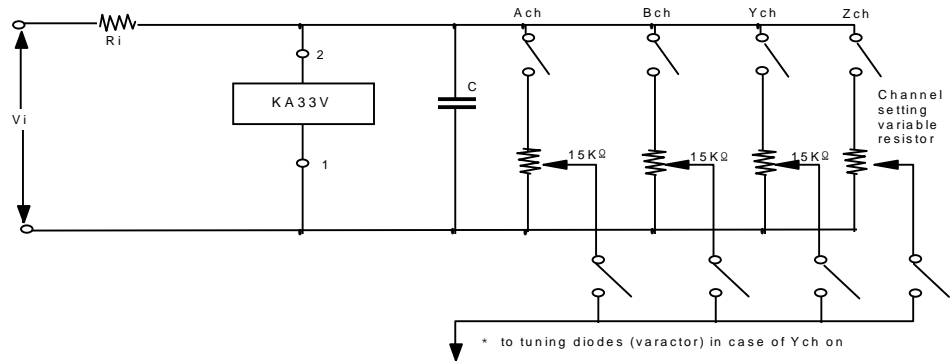
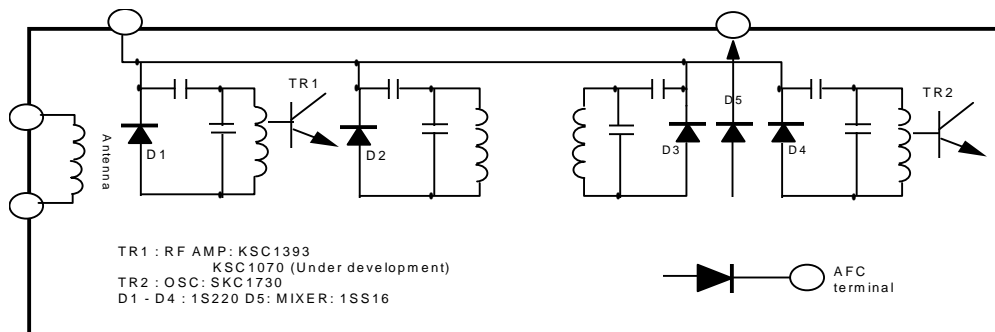


Figure 2. Measuring Circuit for Dynamic Resistance

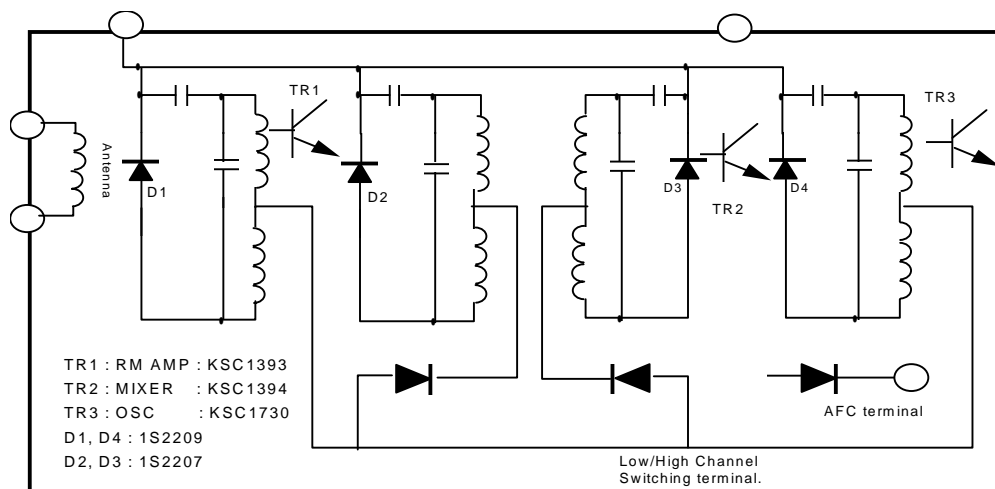
Typical Application



1) UHF Tuner



2) VHF Tuner



Power-temperature Derating Curve Typical Characteristic Curves

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

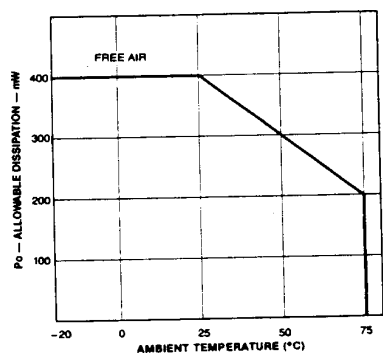


Figure 7. Allowable Dissipation vs. Ambient Temperature

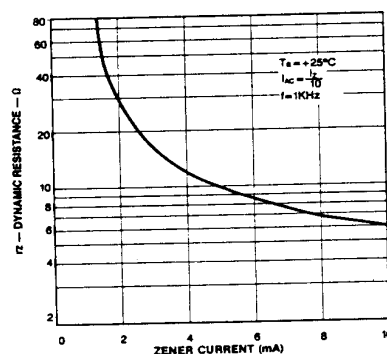


Figure 8. Dynamic Resistance vs. Zener Current

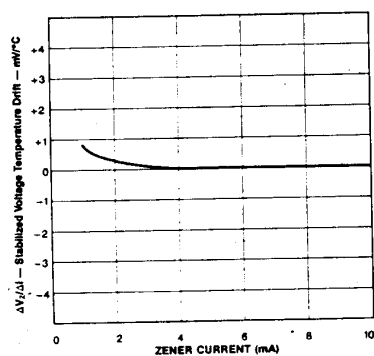


Figure 9. Stabilized Voltage Temperature Drift vs. Zener Current

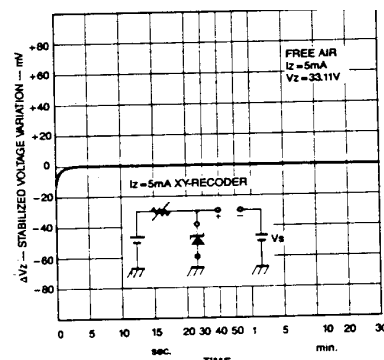


Figure 10. Stabilized Voltage Variation vs. Time

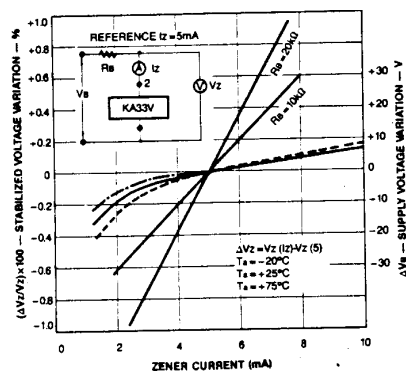


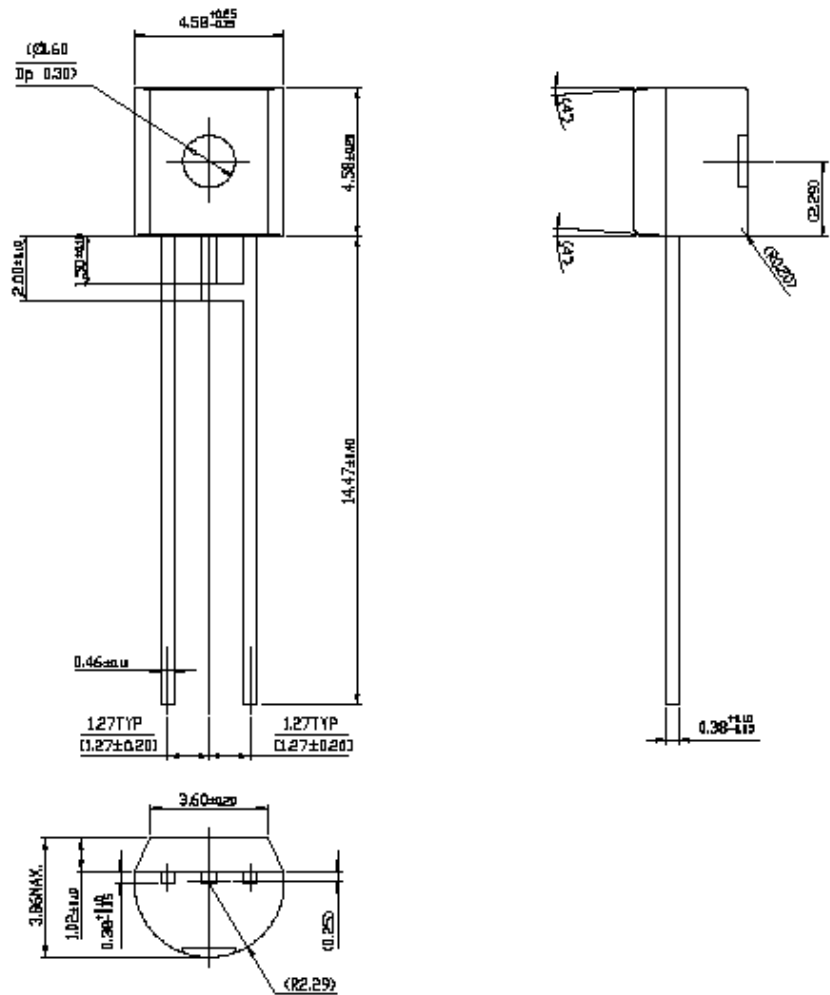
Figure 11. Stabilized Voltage Variation & Supply Voltage Variation vs. Zener Current

Mechanical Dimensions

Package

Dimensions in millimeters

TO-92



Ordering Information

Product Number	Package	Operating Temperature
KA33V	TO-92	

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