

KA33V

Voltage Stabilizer

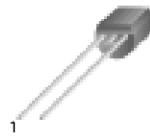
Features

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

Description

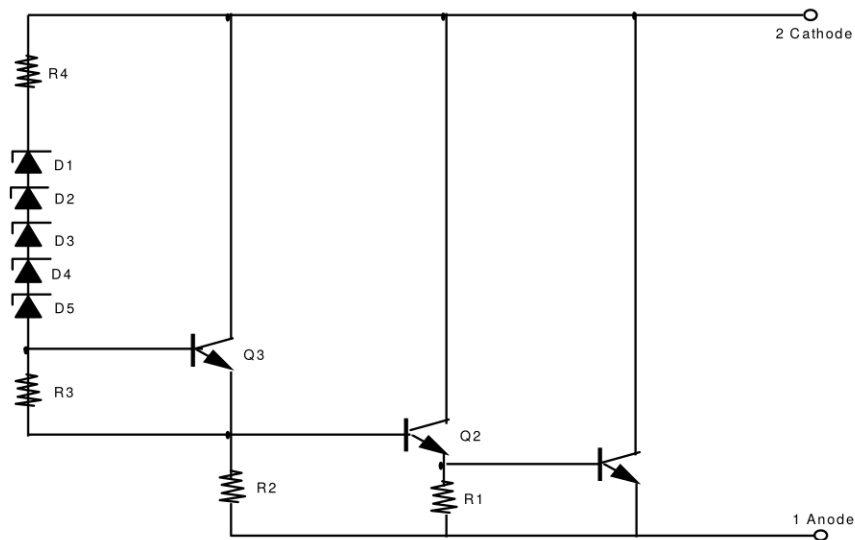
The KA33V is a monolithic integrated voltage stabilizer especially designed as voltage supplier for electronic tuners.

TO-92



1. Anode 2. Cathode

Schematic Diagram



Absolute Maximum Ratings (TA= 25°C)

Parameter	Symbol	Value	Unit
Zener Current	I _Z	10	mA
Power Dissipation (TA = 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 (TA = 25°C)

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

Measuring Circuits

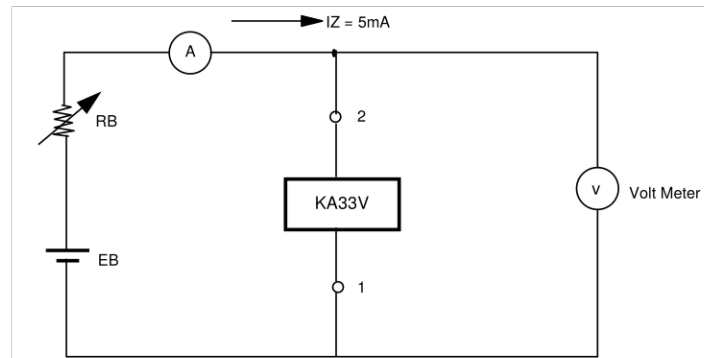


Figure 1. Measuring Circuit for Stabilized Voltage V_z

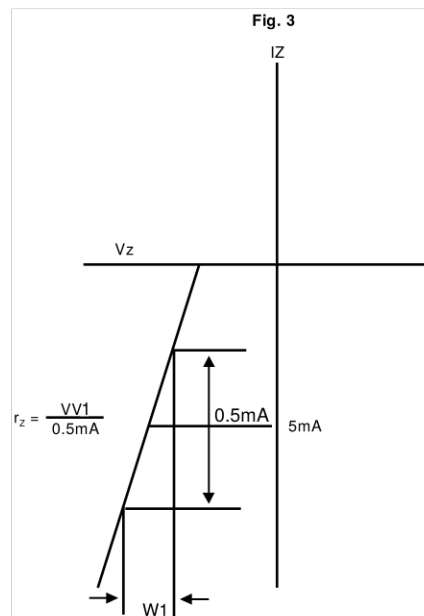
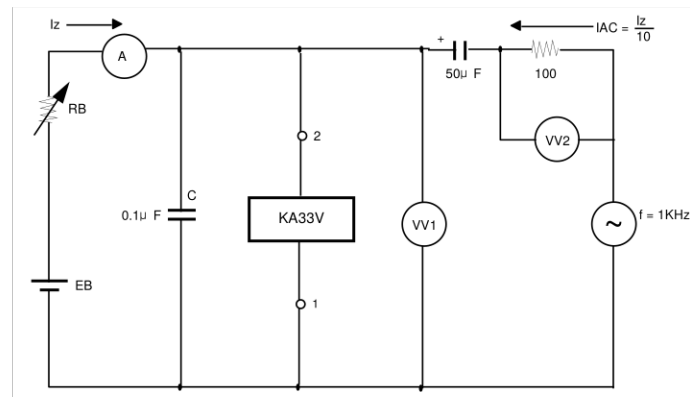
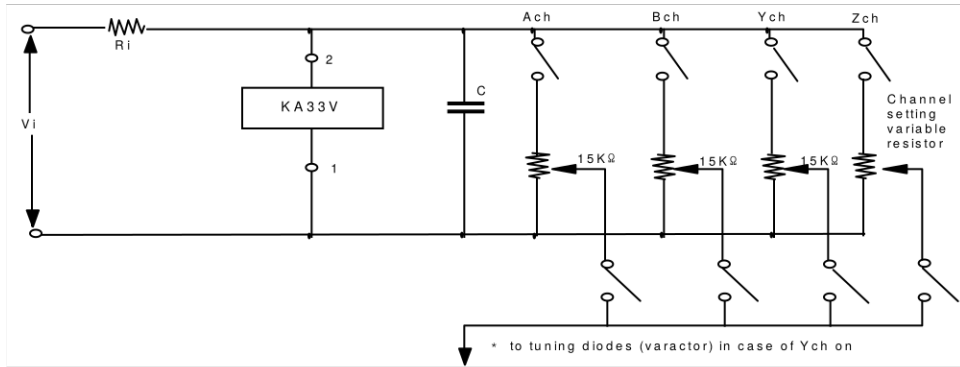
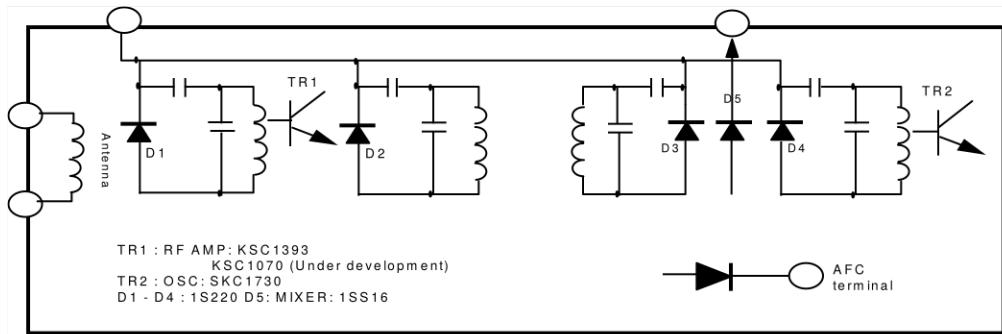


Figure 2. Measuring Circuit for Dynamic Resistance

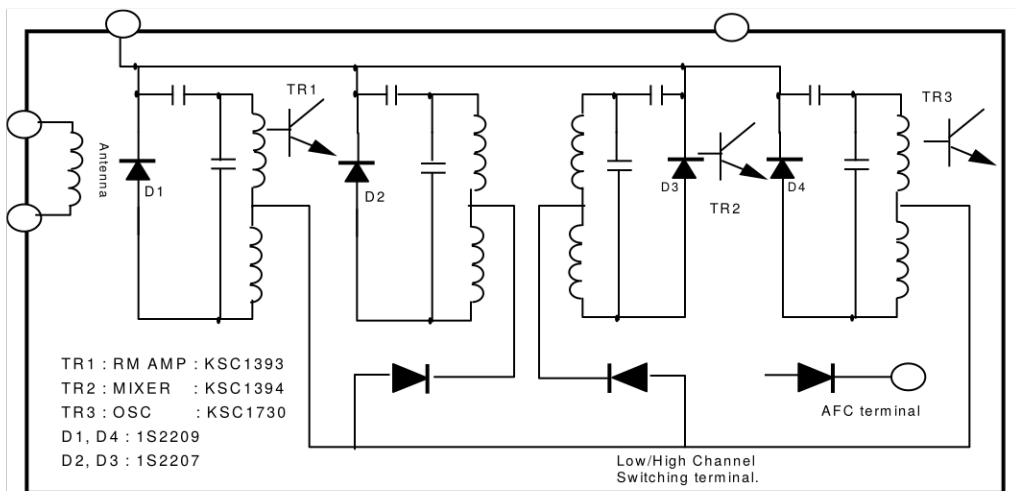
Typical Application



1) UHF Tuner



2) VHF Tuner



Power-temperature Derating Curve Typical Characteristic Curves

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

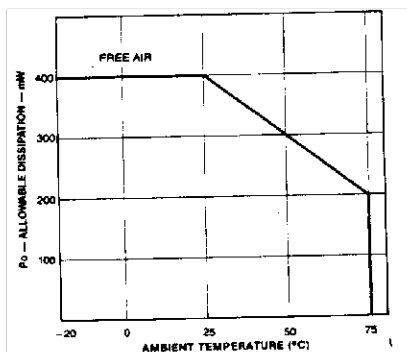


Figure 7. Allowable Dissipation vs. Ambient Temperature

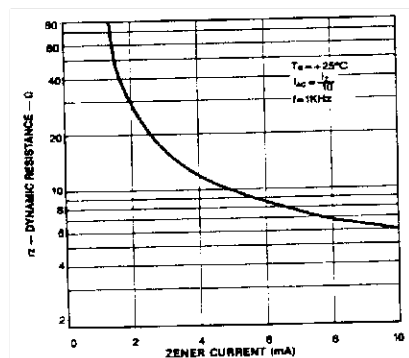


Figure 8. Dynamic Resistance vs. Zener Current

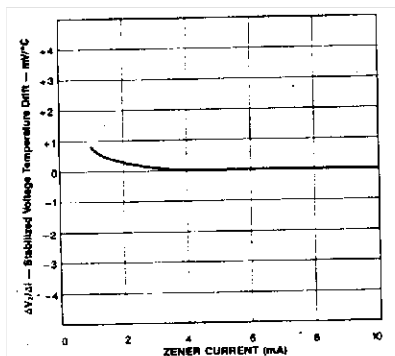


Figure 9. Stabilized Voltage Temperature Drift vs. Zener Current

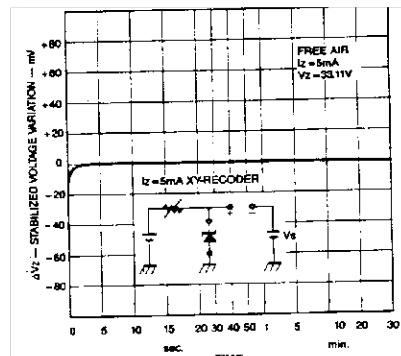


Figure 10. Stabilized Voltage Variation vs. Time

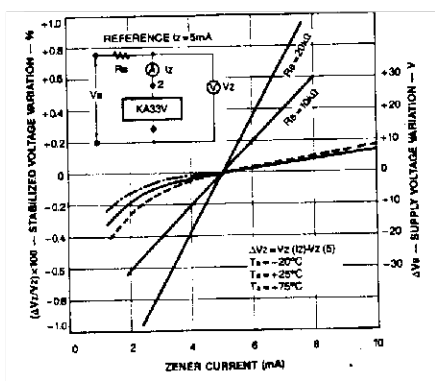


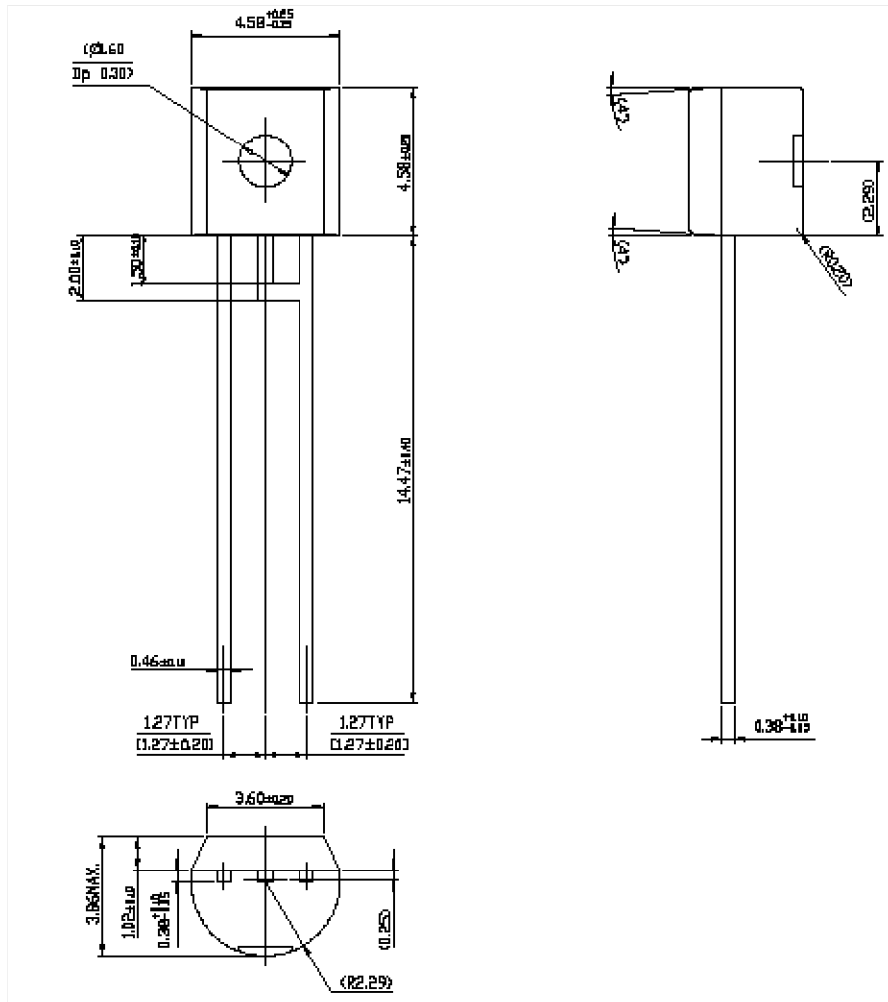
Figure 11. Stabilized Voltage Variation & Supply Voltage Variation vs. Zener Current

Mechanical Dimensions

Package

Dimensions in millimeters

TO-92



Ordering Information

Product Number	Package	Operating Temperature
KA33V	TO-92	

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General description

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

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Features

- Low Temperature Coefficient
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- Typical Reference Voltage of 33V

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Product status/pricing/packageing

BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method
KA33VTA	Full Production	 Full Production	\$0.158	TO-92	3	AMMO

* Fairchild 1,000 piece Budgetary Pricing

** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a [Fairchild distributor](#) to obtain samples



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