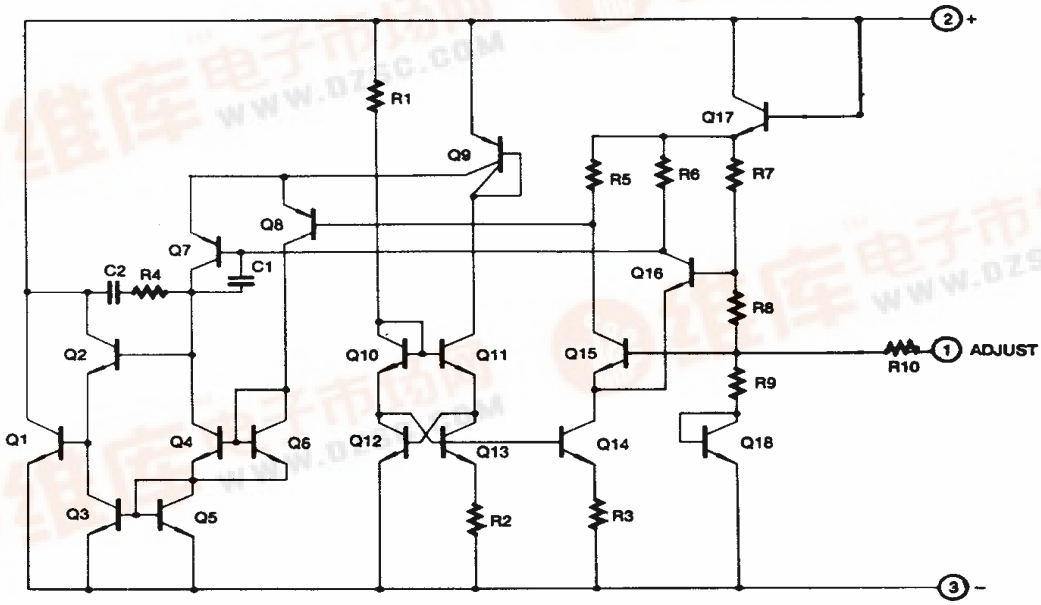
Features

- Low temperature coefficient
- Guaranteed temperature stability 4mV typical
- 0.2Ω dynamic impedance
- ±1.0% initial tolerance available
- Easily trimmed for minimum temperature drift

Description

The WS336-2.5 integrated Circuits are precision 2.5V shunt regulators. The monolithic IC voltage references operates as a low temperature coeffcient 2.5V zener with 0.2ohm dynamic impedance. A third terminal on the WS336-2.5 allow the reference voltage and temperature coefficent to be trimmed easily. WS336-2.5 are useful as a precision 2.5V low voltage reference for digital voltmeters, power supplies or op amp circuitry. The 2.5V make it convenient to obtain a stable reference from low voltage supplies. Further, since the WS336-2.5 operate as shunt regulators, they can be used as either a positive or negative voltage reference.

Internal Block Diagram



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse Current	I_R	15	mA
Forward Current	I_F	10	mA
Operating Temperature Range KA336-2.5/B	T_{OPR}	0 ~ + 70	°C
Storage Temperature Range	T_{STG}	- 60 ~ + 150	°C

Electrical Characteristics

(0°C < T_A < +70°C, unless otherwise specified)

Parameter	Symbol	Conditions	WS336-2.5						Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Reverse Breakdown Voltage	V_R	T_A = +25°C I_R = 1mA	2.44	2.49	2.54				V
Reverse Breakdown Change with Current	$\Delta V_R/\Delta I_R$	T_A = +25°C 400uA ≤I_R ≤ 10mA	-	2.6	10				mV
Reverse Dynamic Impedance	Z_D	T_A = +25°C I_R = 1mA	-	0.2	1				Ω
Temperature Stability	ST_T	I_R = 1mA	-	1.8	6				m V
Reverse Breakdown Change with Current	$\Delta V_R/\Delta I_R$	400uA ≤ I_R ≤10mA	-	3	12				mV
Reverse Dynamic Impedance	Z_D	I_R = 1mA	-	0.4	1				Ω
Long Term Stability In reference voltage	ST	I_R = 1mA	-	20	-				ppm/Khr

Typical Perfomance Characteristics

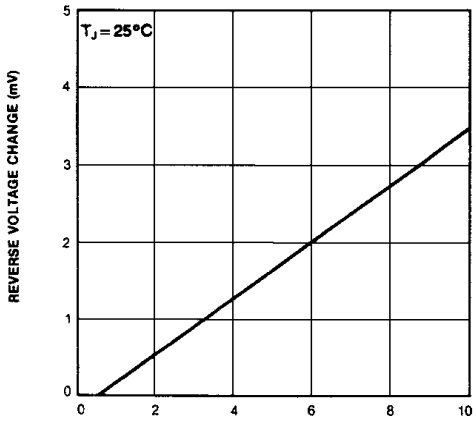


Figure 1. Reverse Voltage Change

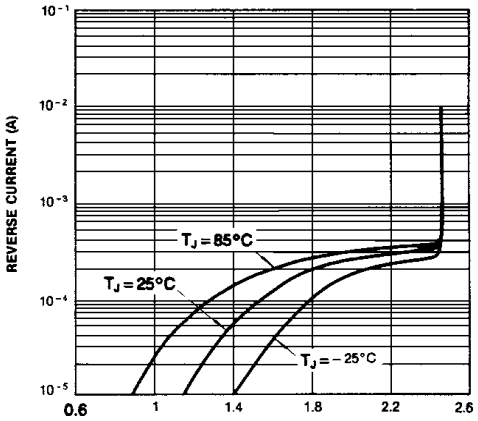


Figure 2. Reverse Characteristics

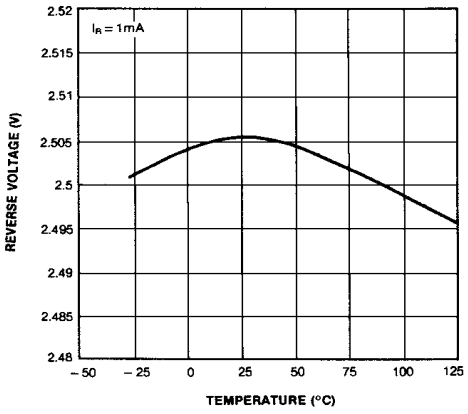


Figure 3. Temperature Drift

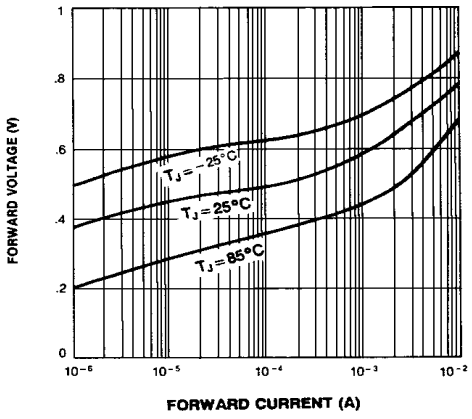


Figure 4. Forward Characteristics