KA75330

Voltage Detector

Features

- Detecting Against Error Operations At The Power On/off.
- Resetting Function For The Low Voltage Microprocessor.
- Checking Low Battery

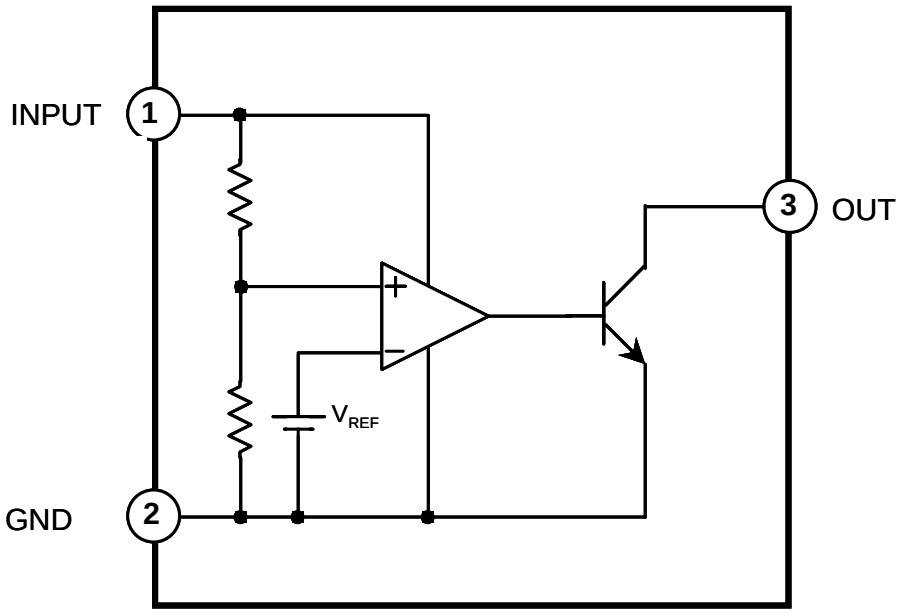
Description

The KA75330 prevents the error of system from supply voltage below normal voltage level at the time the power on and instantaneous power off in systems.

TO-92

1. Input 2. GND 3. Output

Internal Block Diagram



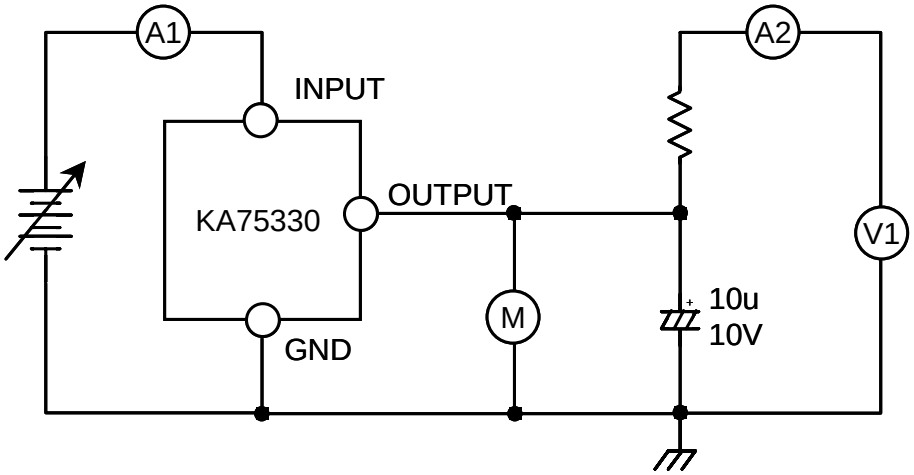
Absolute Maximum Rating (T_A=25°C)

Characteristic	Symbol	Value	Unit
Supply Voltage	Vcc	0.3 ~ +15.0	V
Detecting Voltage	V_{DET}	3.3	V
Hysteresis Voltage	V_{HYS}	50	mV
Operating Temperature	T_{OPR}	-25 ~ +85	°C
Storage Temperature	T_{STG}	-50 ~ +150	°C
Power Dissipation (TO-92)	P_D	200	mW
Detecting Voltage Temperature Coefficient	$\Delta V_{DET}/\Delta T$	R_L = 200Ω, +0.01	%/°C

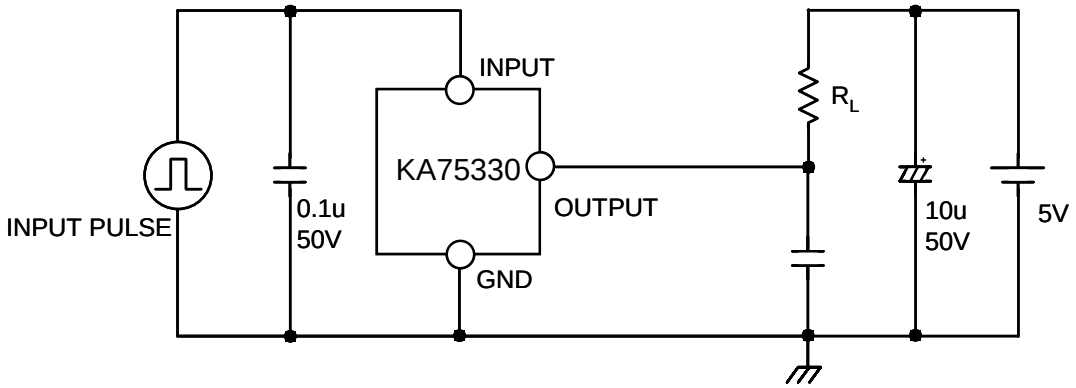
Electrical Characteristics (T_A=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Detecting Voltage	V_{DET}	R_L = 200Ω, $V_{OL} \leq$ 0.4V	3.15	3.3	3.45	V
Low Output Voltage	V_{OL}	R_L = 200Ω	-	-	0.4	V
Output Leakage Current	I_{LKG}	V_{CC} = 15V	-	-	0.1	uA
Hysteresis Voltage	V_{HYS}	R_L = 200Ω	30	50	100	mV
Detecting Voltage Temperature Coefficient	$\Delta V_{DET}/\Delta T$	R_L = 200Ω	-	±0.01	-	%/°C
Circuit Current(At On Time)	I_{CCL}	$V_{CC} = V_{DET(MIN)}$ -0.05V	-	300	500	uA
Circuit Current(At Off Time)	I_{CCH}	V_{CC} = 5.25V	-	30	50	uA
Threshold Operating Voltage	$V_{TH(OPR)}$	R_L = 200Ω, $V_{OL} \leq$ 0.4V	-	0.8	1.0	V
" L"± Transmission Delay Time	T_{OL}	R_L = 1.0kΩ, C_L= 100pF	0.6	10	-	us
" H"± Transmission Delay Time	T_{OH}	R_L = 1.0kΩ, C_L = 100pF	-	15	20	us
Output Current (At On Time)	I_{OLI}	$V_{CC} = V_{DET(MIN)}$ -0.05V, T_A = 25°C	10	20	30	mA
Output Current (At On Time)	I_{OLII}	$V_{CC} = V_{DET(MIN)}$ - 0.05V T_A = -25 ~ +85°C	8	16	30	mA

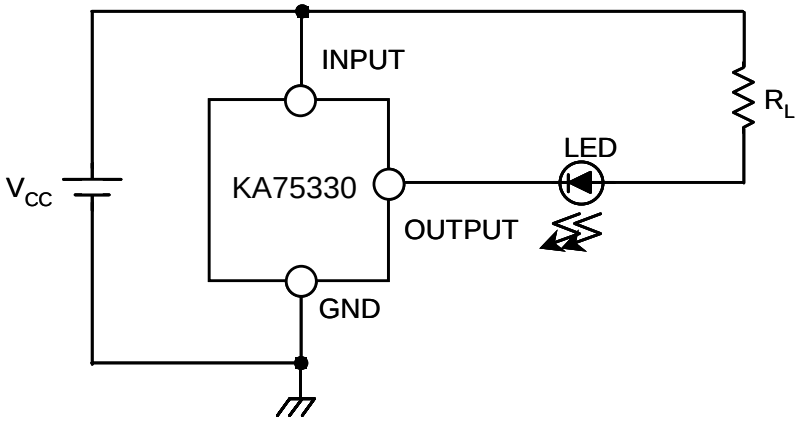
Test Circuit 1.



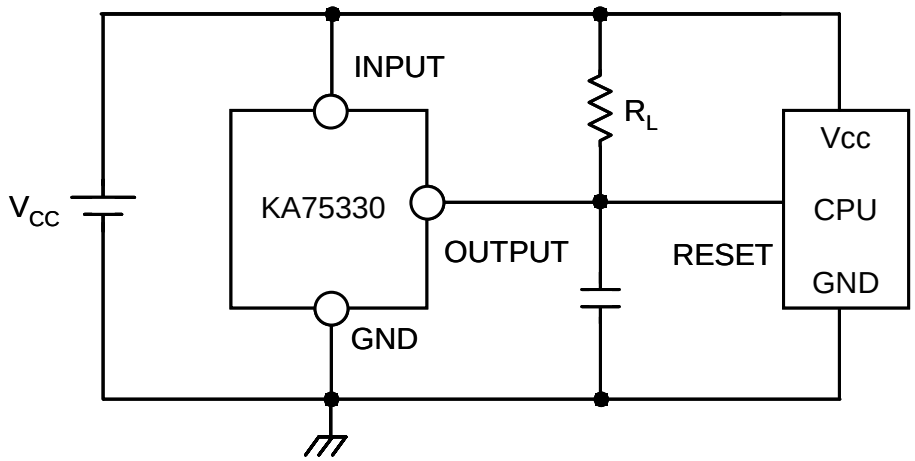
Test Circuit 2.



Test Circuit 3.



Application Circuit

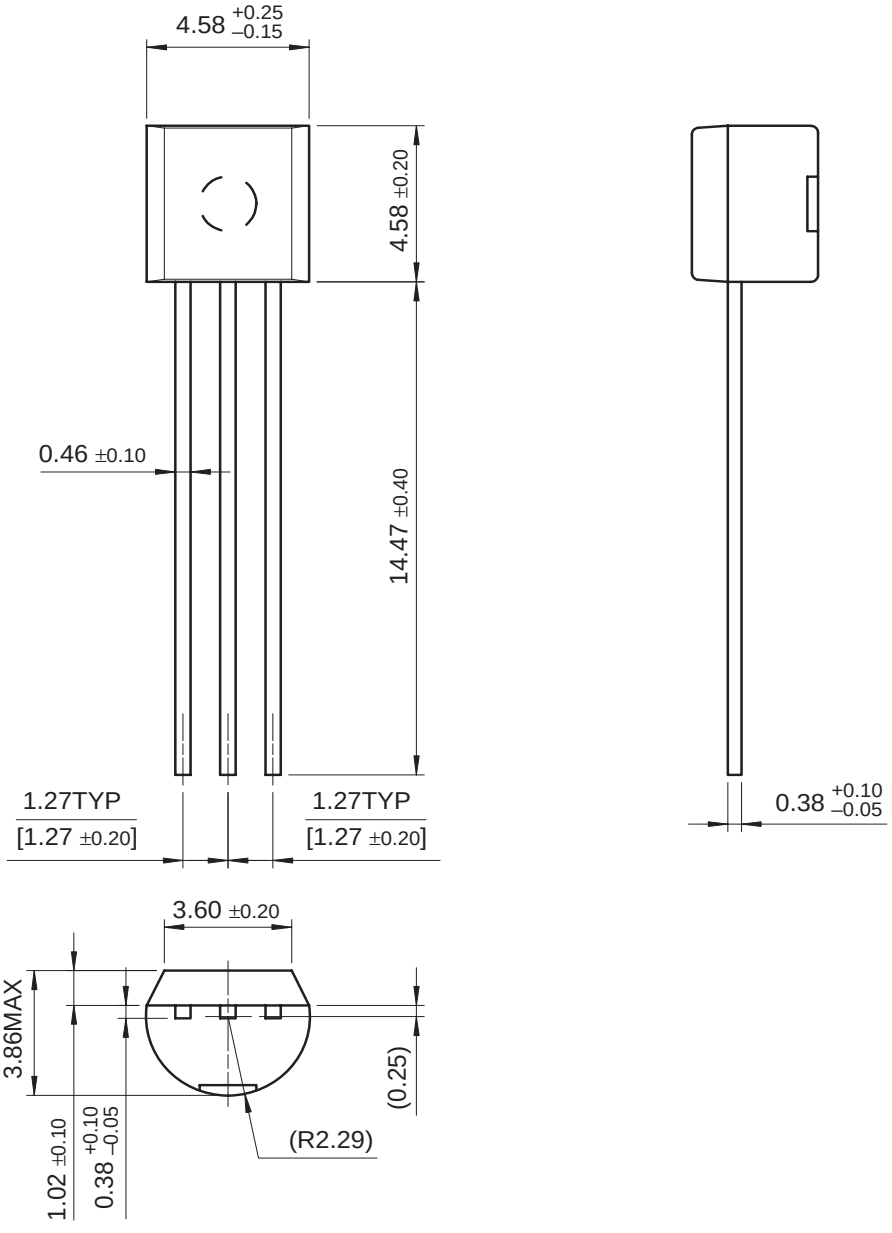


Mechanical Dimensions

Package

Dimensions in millimeters

TO-92



Ordering Information

Product Number	Package	Operating Temperature
KA75330Z	TO-92	-25 ~ +85°C