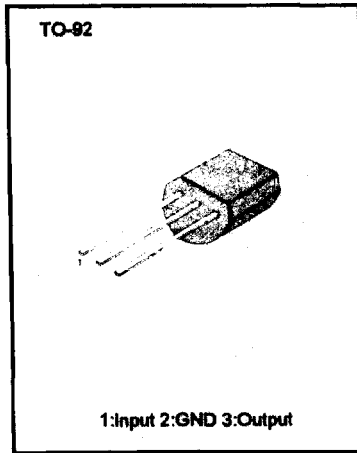


3.3V VOLTAGE DETECTOR

The KA7533 prevents error of system from supply voltage below normal voltage level at the time the power on and instantaneous power off in systems.

FEATURES

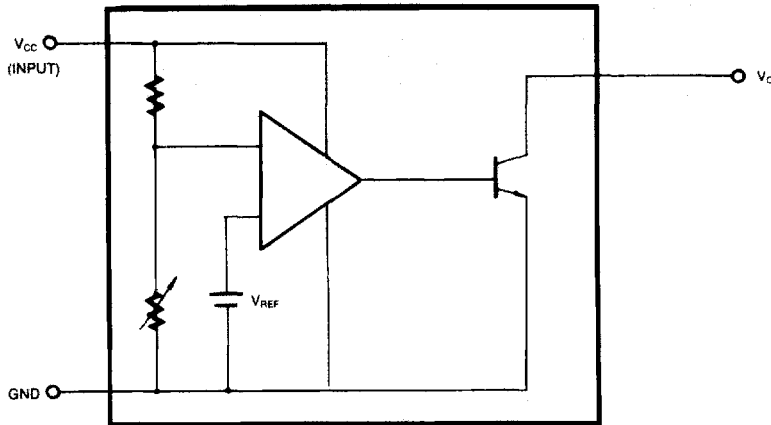
- Detecting against error operations at the power ON/OFF.
- Resetting function for the low voltage microprocessor.
- Checking low battery.



ORDERING INFORMATION

Device	Package	Operating Temperature
KA7533Z	TO-92	-30 ~ + 75°C

BLOCK DIAGRAM



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

Characteristic	Symbol	Value	Unit
Supply Voltage	V_{CC}	00.3 ~ +15.0	V
Detecting Voltage	V_{DET}	3.3	V
Hysteresis Voltage	V_{HYS}	50	mV
Operating Temperature	T_{OPR}	-30 ~ +75	$^\circ\text{C}$
Storage Temperature	T_{STG}	-50 ~ +150	$^\circ\text{C}$
Power Dissipation	P_D	200	mW
Detecting Voltage Temperature Coefficient	$\Delta V_{DET}/\Delta T$	± 0.01	%/ $^\circ\text{C}$

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

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Detecting Voltage	V_{DET}	$R_L = 200\Omega$, $V_{OL} \leq 0.4V$	3.15	3.3	3.45	V
Low Output Voltage	V_{OL}	$R_L = 200\Omega$	—	—	0.25	V
Output Leakage Current	I_{LKG}	$V_{CC} = 15V$	—	—	0.1	μA
Hysteresis Voltage	V_{HYS}	$R_L = 200\Omega$	30	50	100	mV
Detecting Voltage Temperature Coefficient	$\Delta V_{DET}/\Delta T$	$R_L = 200\Omega$	—	± 0.1	—	%/ $^\circ\text{C}$
Circuit Current (at on time)	I_{CCL}	$V_{CC} = V_{DET(MIN)} - 0.05V$	—	300	500	μA
Circuit Current (at off time)	I_{CCH}	$V_{CC} = 5.25V$	—	30	50	μA
Threshold Operating Voltage	$V_{TH(OPR)}$	$R_L = 200\Omega$, $V_{OL} \leq 0.4V$	0.6	0.8	1.0	V
"L" Transmission Delay Time	t_{OL}	$R_L = 1.0K\Omega$, $C_L = 100pF$	—	10	15	μS
"H" Transmission Delay Time	t_{OH}	$R_L = 1.0K\Omega$, $C_L = 100pF$	—	15	20	μS
Output Current (at on time I)	I_{OLI}	$V_{CC} = V_{DET(MIN)} - 0.05V$, $T_C = 25^\circ\text{C}$	10	18	28	mA
Output Current (at on time II)	I_{OLII}	$V_{CC} = V_{DET(MIN)} - 0.05V$, $T_C = -30 \sim +75^\circ\text{C}$	8	16	30	mA