AUK Semiconductor

S7142AM

Bipolar Linear Integrated Circuit

Description

- As Control Circuit of Battery-Backed Memory
- As Measure Against Erroneous Operations at Power On-Off
- As Resetting Function for the CPU-Mounted Equipment --- PC, Printer, VTR, Fax, C-TV etc.
- As Measure Against System Runaway at Instantaneous Break of Power Supply etc.

Features

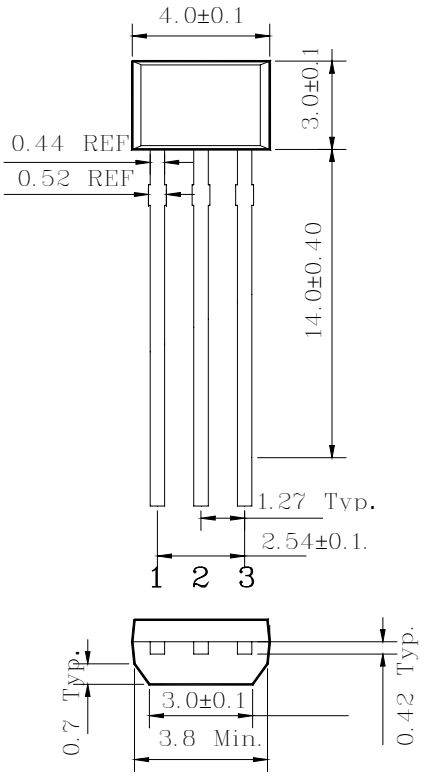
- Current Consumption is Low ($I_{CC}L$=300 ㎂ Typ. $I_{CC}H$=30 ㎂ Typ.)
- Resetting Output Minimum Guarantee Voltage is Low (0.8V Typ.)
- Hysteresis Voltage is Provided (50 ㎷ Typ.)

Ordering Information

Type NO.	Marking	Package Code
S7142AM	S7142AM	TO-92M

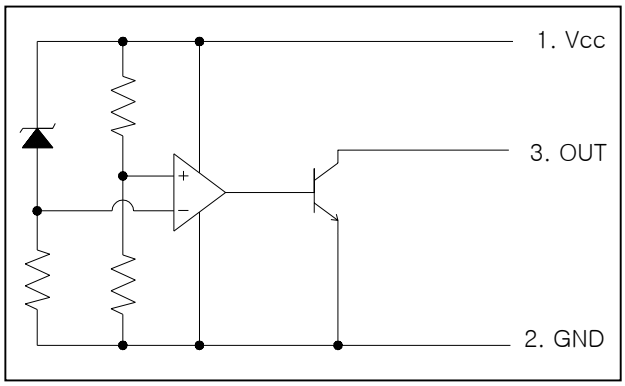
Outline Dimensions

unit : mm



PIN Connections
1. Vcc
2. GND
3. OUT

Equivalent Circuit



Absolute maximum ratings

(Ta=25°C)

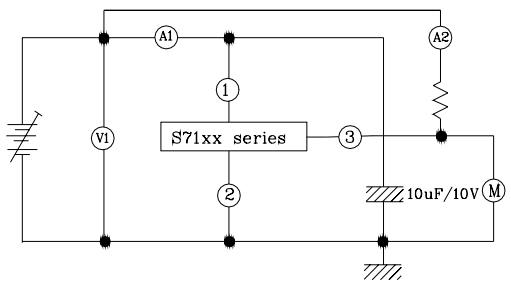
Characteristic	Symbol	Ratings	Unit
Supply voltage	V_{CC}	-0.3 ~ +15	V
Power Dissipation (Package Limitation)	P_D	400	mW
Operating Temperature	T_{opr}	-30 ~ +75	℃
Storage Temperature	T_{stg}	-55 ~ +150	℃

Electrical Characteristics

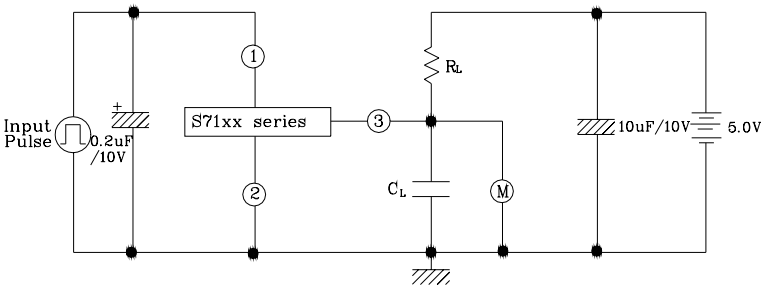
(Ta=25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min.	Typ.	Max.	Unit
Detecting voltage	V_S	1	R_L=200Ω , V_{OL}≤ 0.4V	4.05	4.2	4.35	V
Low Level Output voltage	V_{OL}	1	R_L=200Ω	-	-	0.4	V
Output Leakage Current	I_{OH}	1	V_{CC}=15V	-	-	0.1	μA
Hysteresis Voltage	Δ V_S	1	R_L=200Ω	30	50	100	mV
Detecting Voltage Temperature Coefficient	V_S/Δ T	1	R_L=200Ω	-	±0.01	-	%/℃
Circuit current at on Time	I_{CC}L	1	V_{CC} = V_{Smin} - 0.05V	-	300	500	μA
Circuit current at off Time	I_{CC}H	1	V_{CC}=5.25V	-	30	50	μA
Threshold Operating Voltage	V_{opr}	1	R_L=200Ω , V_{OL}≤ 0.4V	-	0.8	-	V
'L' Transmission Delay Time	t_PHL	2	R_L=1.0 kΩ, C_L=100 pF	-	10	-	μs
'H' Transmission Delay Time	t_PLH	2	R_L=1.0 kΩ, C_L=100 pF	-	15	-	μs
Output Current at on Time I	I_{OL}I	1	V_{CC} = V_{Smin} - 0.05V Ta = 25℃	20	-	-	mA
Output Current at on Time II	I_{OL}II	1	V_{CC} = V_{Smin} - 0.05V Ta = -30~+75℃	16	-	-	mA

Test Circuit 1



Test Circuit 2



Electrical Characteristic Curves

Fig. 1 V_{OUT} –V_{CC}

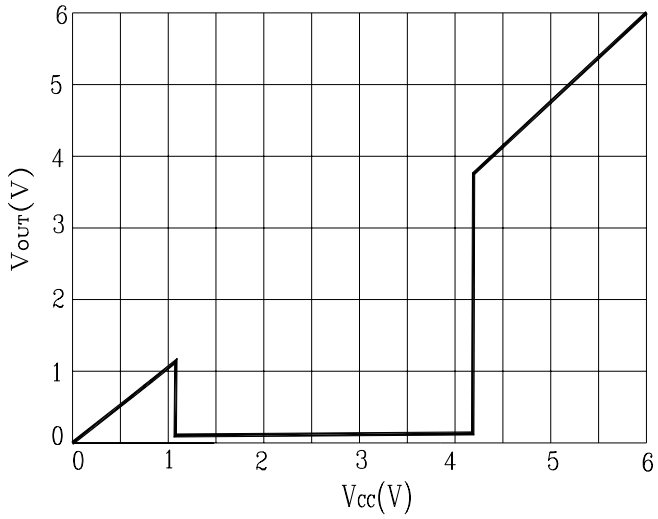


Fig. 2 I_{CC} -V_{CC}

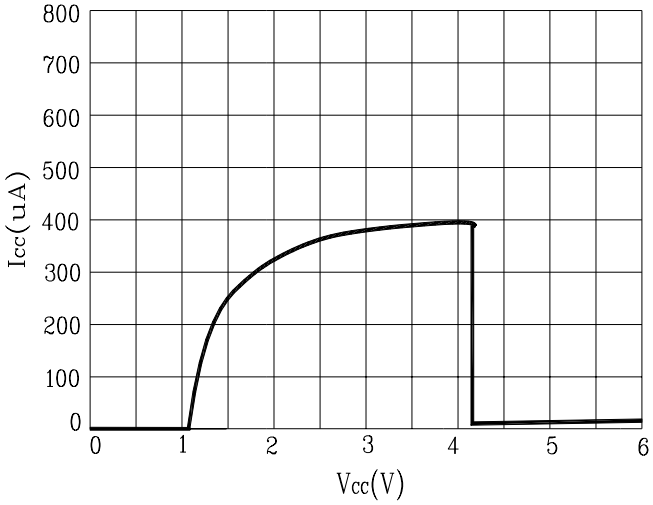


Fig. 3 I_{CC}H-Temp

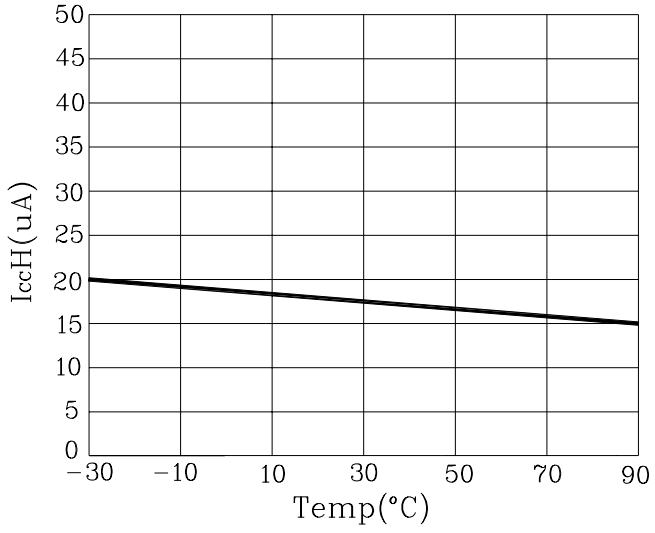


Fig. 4 I_{OL} -R_L