

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

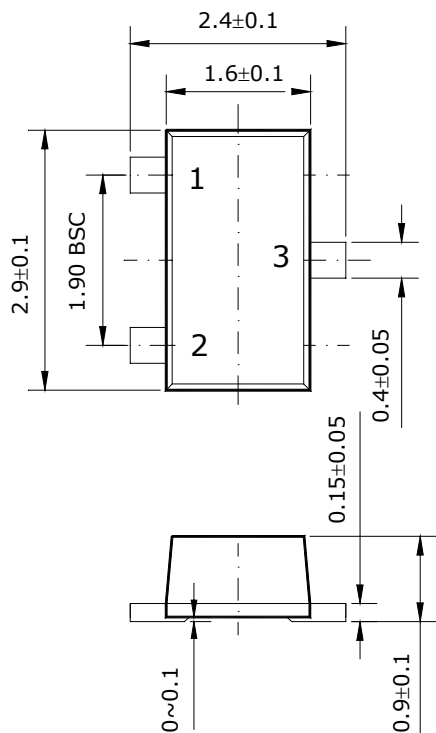
- Current Consumption is Low ($I_{CC L} = 300 \mu A$ Typ. $I_{CC H} = 30 \mu A$ Typ.)
- Resetting Output Minimum Guarantee Voltage is Low (0.8V Typ.)
- Hysteresis Voltage is Provided (50 mV Typ.)

Ordering Information

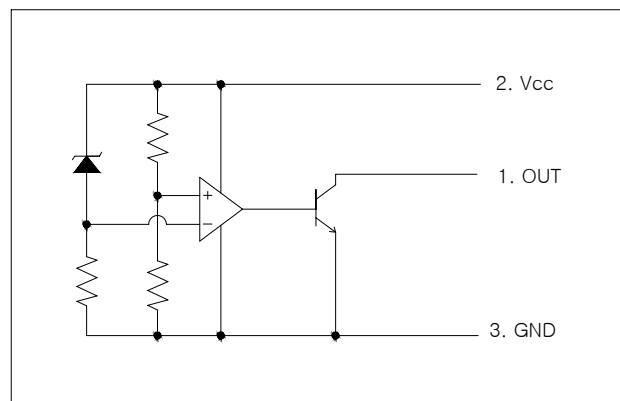
| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| S7131SF | 731 | SOT-23F |

Outline Dimensions

unit : mm



Equivalent Circuit



PIN Connections

1. Out
2. Vcc
3. GND

Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|--|------------------|------------|------|
| Supply voltage | V _{CC} | -0.3 ~ +15 | V |
| Power Dissipation (Package Limitation) | P _D * | 300 | mW |
| Operating Temperature | T _{opr} | -30 ~ +75 | °C |
| Storage Temperature | T _{stg} | -55 ~ +150 | °C |

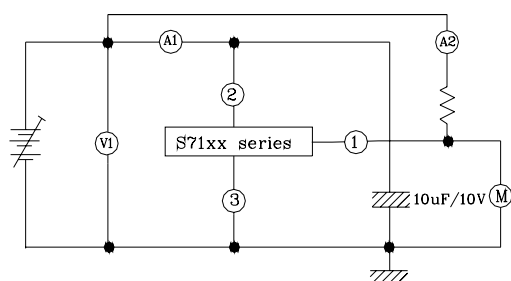
* With PCB(8×8 mm Copper Area) at Glass Epoxy Board (t=1.7 mm, Area; 20×20 mm)

Electrical Characteristics

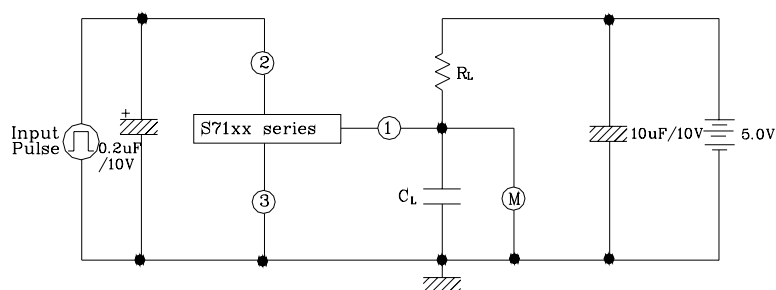
(Ta=25°C)

| Characteristic | Symbol | Test Circuit | Test Condition | Min. | Typ. | Max. | Unit |
|---|--------------------|--------------|---|------|-------|------|------|
| Detecting voltage | V _S | 1 | R _L =200Ω, V _{OL} ≤0.4V | 2.95 | 3.1 | 3.25 | 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 | ΔV _S | 1 | R _L =200Ω | 30 | 50 | 100 | mV |
| Detecting Voltage Temperature Coefficient | V _S /ΔT | 1 | R _L =200Ω | - | ±0.01 | - | %/°C |
| Circuit current at on Time | I _{CCL} | 1 | V _{CC} = V _{Smin} - 0.05V | - | 300 | 500 | μA |
| Circuit current at off Time | I _{CCH} | 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°C | 20 | - | - | mA |
| Output Current at on Time II | I _{OL II} | 1 | V _{CC} = V _{Smin} - 0.05V Ta = -30~+75°C | 16 | - | - | mA |

Test Circuit 1



Test Circuit 2



Electrical Characteristic Curves

Fig. 1 $V_{OUT} - V_{CC}$

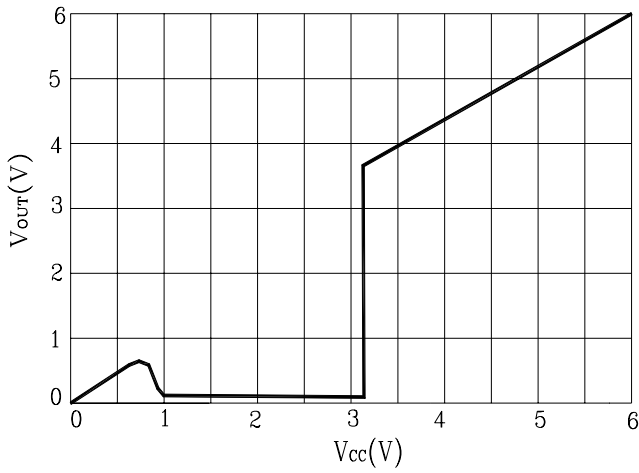


Fig. 2 $I_{CC} - V_{CC}$

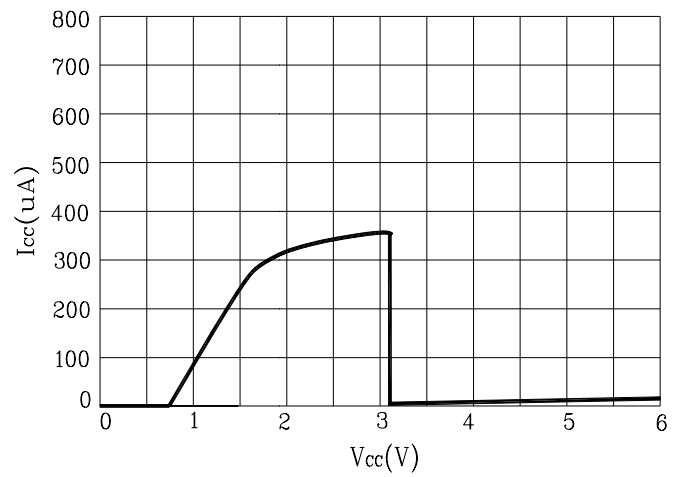


Fig. 3 $I_{CCH} - Temp$

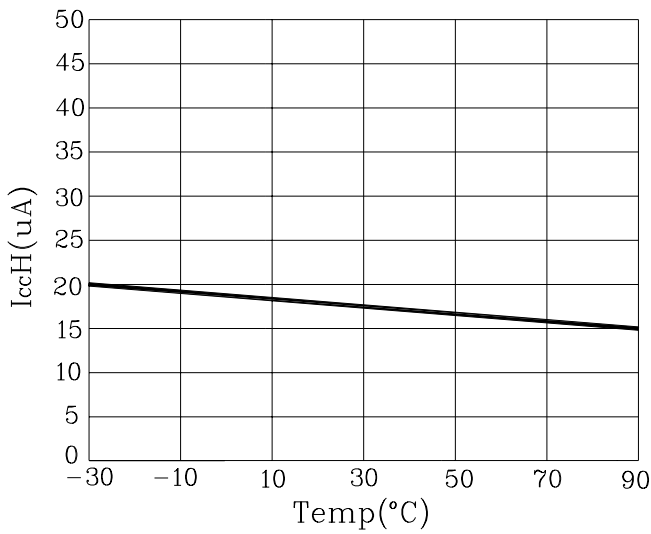


Fig. 4 $I_{OL} - R_L$

