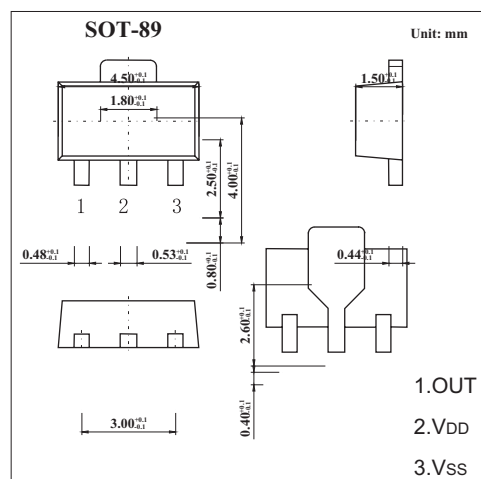


High-Precision Voltage Detector

S-80740AL-A4-X

■ Features

- Ultra-Low Current Consumption 1.0 μ A Typ.(V_{DD} = 4.5V)
- High-Precision Detection Voltage $\pm 2.4\%$
- Wide Operating Voltage Range 1.0 to 15V
- Good Hysteresis Characteristics 5% Typ.
- Wide Operating Temperature Range -30 $^{\circ}$ C to +80 $^{\circ}$ C
- CMOS Output Active Low

■ Absolute Maximum Ratings Ta = 25 $^{\circ}$ C

| Parameter | Symbol | Rating | Unit |
|-----------------------|-----------------------------------|--|--------------|
| Power Supply Voltage | V _{DD} - V _{SS} | 18 | V |
| Input Voltage | V _{IN} | V _{SS} -0.3 to V _{DD} +0.3 | |
| Output Voltage | V _{OUT} | V _{SS} -0.3 to V _{IN} +0.3 | |
| Output Current | I _{OUT} | 50 | mA |
| Power Dissipation | P _D | 200 | mW |
| Operating Temperature | T _{opr} | -30 to +80 | $^{\circ}$ C |
| Storage Temperature | T _{stg} | -40 to +125 | |

Caution: Keep static electricity to a minimum.

■ Electrical Characteristics Ta = 25 $^{\circ}$ C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit | Test Circuit |
|---|--------------------------------------|--|----------------------------|----------------------------|----------------------------|------------------|--------------|
| Detection Voltage | -V _{DET} | | 3.904 | 4.000 | 4.096 | V | 1 |
| Hysteresis Width | V _{HYS} | | -V _{DET} x0.02 | -V _{DET} x0.05 | -V _{DET} x0.08 | V | 1 |
| Current Consumption | I _{SS} | V _{DD} = 6.0V | — | 1.0 | 3.0 | μ A | 2 |
| Operating Voltage | V _{DD} | | 1.0 | — | 15.0 | V | 1 |
| Output Current | I _{OUT} | V _{DS} = 0.5V, V _{DD} = 6.0V | 0.46 | 0.75 | — | mA | 4 |
| Temperature Characteristic of -V _{DET} | $\frac{\Delta -V_{DET}}{\Delta T_a}$ | T _a = -30 $^{\circ}$ C to 80 $^{\circ}$ C | — | ± 0.50 | — | mV/ $^{\circ}$ C | — |