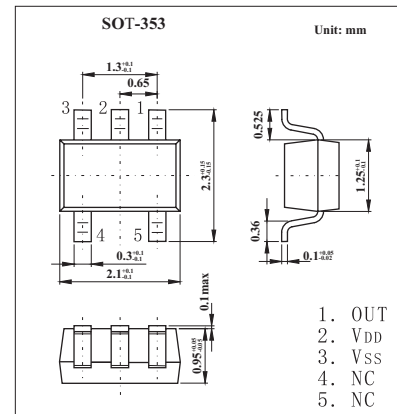


## High-Precision Voltage Detector

## S-80728SN-DR-X

## ■ Features

- Ultra-Low Current Consumption 1.0 $\mu$ A Typ.(V<sub>DD</sub> = 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
- Nch Open-Drain

■ Absolute Maximum Ratings T<sub>a</sub> = 25 $^{\circ}$ C

Parameter	Symbol	Rating	Unit
Power Supply Voltage	V <sub>DD</sub> - V <sub>SS</sub>	18	V
Input Voltage	V <sub>IN</sub>	V <sub>SS</sub> -0.3 to V <sub>DD</sub> +0.3	
Output Voltage	V <sub>OUT</sub>	V <sub>SS</sub> -0.3 to 18	
Output Current	I <sub>OUT</sub>	50	mA
Power Dissipation	P <sub>D</sub>	150	mW
Operating Temperature	T <sub>opr</sub>	-30 to +80	$^{\circ}$ C
Storage Temperature	T <sub>stg</sub>	-40 to +125	

Caution: Keep static electricity to a minimum.

■ Electrical Characteristics T<sub>a</sub> = 25 $^{\circ}$ C

Parameter	Symbol	Conditions	Min	Typ	Max	Unit	Test Circuit
Detection Voltage	-V <sub>DET</sub>		2.732	2.800	2.868	V	1
Hysteresis Width	V <sub>HYS</sub>		-V <sub>DET</sub> x0.02	-V <sub>DET</sub> x0.05	-V <sub>DET</sub> x0.08	V	1
Current Consumption	I <sub>SS</sub>	V <sub>DD</sub> = 4.5V	—	1.0	3.0	$\mu$ A	2
Operating Voltage	V <sub>DD</sub>		1.0	—	15.0	V	1
Output Current	I <sub>OUT</sub>	V <sub>DS</sub> = 0.5V, V <sub>DD</sub> = 1.2V	0.23	0.50	—	mA	3
		V <sub>DS</sub> = 0.5V, V <sub>DD</sub> = 2.4V	1.60	3.70	—		
Temperature Characteristic of -V <sub>DET</sub>	$\frac{\Delta -V_{DET}}{\Delta T_a}$	T <sub>a</sub> = -30 $^{\circ}$ C to 80 $^{\circ}$ C	—	$\pm 0.35$	—	mV/ $^{\circ}$ C	—