



电子元器件系列(中国.厦门) China.Xiamen  
*www.rf-china.com* RF-Micom co.,Ltd

**Email:sales@rf-china.com**

**Telephone:0086-592-5713956 Fax:5201617**

**SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR**  
**S-808 Series**

**Table 1**

Detection voltage range (V)	Hysteresis width $V_{HYS}$ typ.(V)	Nch Open Drain(Low)			
		SC-82AB	TO-92	SOT-89-3	SOT-23-5
0.8V±2.0%	0.034	S-80808ANNP-E7Y-T2	—	—	—
0.9V±2.0%	0.044	S-80809ANNP-E7Z-T2	—	—	—
1.0V±2.0%	0.054	S-80810ANNP-E70-T2	—	—	—
1.1V±2.0%	0.064	S-80811ANNP-E71-T2	—	—	—
1.2V±2.0%	0.073	S-80812ANNP-E72-T2	—	—	—
1.3V±2.0%	0.083	S-80813ANNP-EDA-T2	—	—	—
1.4V±2.0%	0.093	S-80814ANNP-EDB-T2	—	—	—
1.5V±2.0%	0.075	S-80815ANNP-EDC-T2	S-80815ANY	S-80815ANUP-EDC-T2	—
1.6V±2.0%	0.080	S-80816ANNP-EDD-T2	S-80816ANY	S-80816ANUP-EDD-T2	—
1.7V±2.0%	0.085	S-80817ANNP-EDE-T2	S-80817ANY	S-80817ANUP-EDE-T2	S-80817ANMP-EDE-T2
1.8V±2.0%	0.090	S-80818ANNP-EDF-T2	S-80818ANY	S-80818ANUP-EDF-T2	S-80818ANMP-EDF-T2
1.9V±2.0%	0.095	S-80819ANNP-EDG-T2	S-80819ANY	S-80819ANUP-EDG-T2	S-80819ANMP-EDG-T2
2.0V±2.0%	0.100	S-80820ANNP-EDH-T2	S-80820ANY	S-80820ANUP-EDH-T2	S-80820ANMP-EDH-T2
2.1V±2.0%	0.105	S-80821ANNP-EDJ-T2	S-80821ANY	S-80821ANUP-EDJ-T2	S-80821ANMP-EDJ-T2
2.2V±2.0%	0.110	S-80822ANNP-EDK-T2	S-80822ANY	S-80822ANUP-EDK-T2	S-80822ANMP-EDK-T2
2.3V±2.0%	0.115	S-80823ANNP-EDL-T2	S-80823ANY	S-80823ANUP-EDL-T2	S-80823ANMP-EDL-T2
2.4V±2.0%	0.120	S-80824ANNP-EDM-T2	S-80824ANY	S-80824ANUP-EDM-T2	S-80824ANMP-EDM-T2
2.5V±2.0%	0.125	S-80825ANNP-EDN-T2	S-80825ANY	S-80825ANUP-EDN-T2	S-80825ANMP-EDN-T2
2.6V±2.0%	0.130	S-80826ANNP-EDP-T2	S-80826ANY	S-80826ANUP-EDP-T2	—
2.7V±2.0%	0.135	S-80827ANNP-EDQ-T2	S-80827ANY	S-80827ANUP-EDQ-T2	S-80827ANMP-EDQ-T2
2.8V±2.0%	0.140	S-80828ANNP-EDR-T2	S-80828ANY	S-80828ANUP-EDR-T2	S-80828ANMP-EDR-T2
2.9V±2.0%	0.145	S-80829ANNP-EDS-T2	S-80829ANY	S-80829ANUP-EDS-T2	—
3.0V±2.0%	0.150	S-80830ANNP-EDT-T2	S-80830ANY	S-80830ANUP-EDT-T2	S-80830ANMP-EDT-T2
3.1V±2.0%	0.155	S-80831ANNP-EDV-T2	S-80831ANY	S-80831ANUP-EDV-T2	—
3.2V±2.0%	0.160	S-80832ANNP-EDW-T2	S-80832ANY	S-80832ANUP-EDW-T2	S-80832ANMP-EDW-T2
3.3V±2.0%	0.165	S-80833ANNP-EDX-T2	S-80833ANY	S-80833ANUP-EDX-T2	S-80833ANMP-EDX-T2
3.4V±2.0%	0.170	S-80834ANNP-EDY-T2	S-80834ANY	S-80834ANUP-EDY-T2	S-80834ANMP-EDY-T2
3.5V±2.0%	0.175	S-80835ANNP-EDZ-T2	S-80835ANY	S-80835ANUP-EDZ-T2	S-80835ANMP-EDZ-T2
3.6V±2.0%	0.180	S-80836ANNP-ED0-T2	S-80836ANY	S-80836ANUP-ED0-T2	S-80836ANMP-ED0-T2
3.7V±2.0%	0.185	S-80837ANNP-ED1-T2	S-80837ANY	S-80837ANUP-ED1-T2	—
3.8V±2.0%	0.190	S-80838ANNP-ED2-T2	S-80838ANY	S-80838ANUP-ED2-T2	—
3.9V±2.0%	0.195	S-80839ANNP-ED3-T2	S-80839ANY	S-80839ANUP-ED3-T2	S-80839ANMP-ED3-T2
4.0V±2.0%	0.200	S-80840ANNP-ED4-T2	S-80840ANY	S-80840ANUP-ED4-T2	S-80840ANMP-ED4-T2
4.1V±2.0%	0.205	S-80841ANNP-ED5-T2	S-80841ANY	S-80841ANUP-ED5-T2	—
4.2V±2.0%	0.210	S-80842ANNP-ED6-T2	S-80842ANY	S-80842ANUP-ED6-T2	S-80842ANMP-ED6-T2
4.3V±2.0%	0.215	S-80843ANNP-ED7-T2	S-80843ANY	S-80843ANUP-ED7-T2	—
4.4V±2.0%	0.220	S-80844ANNP-ED8-T2	S-80844ANY	S-80844ANUP-ED8-T2	S-80844ANMP-ED8-T2
4.5V±2.0%	0.225	S-80845ANNP-ED9-T2	S-80845ANY	S-80845ANUP-ED9-T2	S-80845ANMP-ED9-T2
4.6V±2.0%	0.230	S-80846ANNP-EJA-T2	S-80846ANY	S-80846ANUP-EJA-T2	—
4.7V±2.0%	0.235	S-80847ANNP-EJB-T2	S-80847ANY	S-80847ANUP-EJB-T2	—
4.8V±2.0%	0.240	S-80848ANNP-EJC-T2	S-80848ANY	S-80848ANUP-EJC-T2	—
4.9V±2.0%	0.245	S-80849ANNP-EJD-T2	S-80849ANY	S-80849ANUP-EJD-T2	—
5.0V±2.0%	0.250	S-80850ANNP-EJE-T2	S-80850ANY	S-80850ANUP-EJE-T2	S-80850ANMP-EJE-T2
5.1V±2.0%	0.255	S-80851ANNP-EJF-T2	S-80851ANY	S-80851ANUP-EJF-T2	S-80851ANMP-EJF-T2
5.2V±2.0%	0.260	S-80852ANNP-EJG-T2	—	S-80852ANUP-EJG-T2	—
5.3V±2.0%	0.265	S-80853ANNP-EJH-T2	S-80853ANY	—	—
5.4V±2.0%	0.270	S-80854ANNP-EJJ-T2	—	—	—
5.5V±2.0%	0.275	S-80855ANNP-EJK-T2	—	—	—
5.6V±2.0%	0.280	S-80856ANNP-EJL-T2	—	—	—
5.7V±2.0%	0.285	S-80857ANNP-EJM-T2	—	—	—
5.8V±2.0%	0.290	S-80858ANNP-EJN-T2	—	—	—
5.9V±2.0%	0.295	S-80859ANNP-EJP-T2	—	—	—
6.0V±2.0%	0.300	S-80860ANNP-EJQ-T2	—	S-80860ANUP-EJQ-T2	—

# SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR

## S-808 Series

Detection voltage range (V)	Hysteresis width $V_{HYS}$ typ.(V)	CMOS Output Drain(Low)			
		SC-82AB	TO-92	SOT-89-3	SOT-23-5
0.8V±2.0%	0.034	S-80808ALNP-E5Y-T2	—	—	—
0.9V±2.0%	0.044	S-80809ALNP-E5Z-T2	—	—	—
1.0V±2.0%	0.054	S-80810ALNP-E50-T2	—	—	—
1.1V±2.0%	0.064	S-80811ALNP-E51-T2	—	—	—
1.2V±2.0%	0.073	S-80812ALNP-E52-T2	—	—	—
1.3V±2.0%	0.083	S-80813ALNP-EAA-T2	—	—	—
1.4V±2.0%	0.093	S-80814ALNP-EAB-T2	—	—	—
1.5V±2.0%	0.075	S-80815ALNP-EAC-T2	S-80815ALY	S-80815ALUP-EAC-T2	S-80815ALMP-EAC-T2
1.6V±2.0%	0.080	S-80816ALNP-EAD-T2	S-80816ALY	S-80816ALUP-EAD-T2	—
1.7V±2.0%	0.085	S-80817ALNP-EAE-T2	S-80817ALY	S-80817ALUP-EAE-T2	—
1.8V±2.0%	0.090	S-80818ALNP-EAF-T2	S-80818ALY	S-80818ALUP-EAF-T2	S-80818ALMP-EAF-T2
1.9V±2.0%	0.095	S-80819ALNP-EAG-T2	S-80819ALY	S-80819ALUP-EAG-T2	S-80819ALMP-EAG-T2
2.0V±2.0%	0.100	S-80820ALNP-EAH-T2	S-80820ALY	S-80820ALUP-EAH-T2	S-80820ALMP-EAH-T2
2.1V±2.0%	0.105	S-80821ALNP-EAJ-T2	S-80821ALY	S-80821ALUP-EAJ-T2	S-80821ALMP-EAJ-T2
2.2V±2.0%	0.110	S-80822ALNP-EAK-T2	S-80822ALY	S-80822ALUP-EAK-T2	—
2.3V±2.0%	0.115	S-80823ALNP-EAL-T2	S-80823ALY	S-80823ALUP-EAL-T2	S-80823ALMP-EAL-T2
2.4V±2.0%	0.120	S-80824ALNP-EAM-T2	S-80824ALY	S-80824ALUP-EAM-T2	—
2.5V±2.0%	0.125	S-80825ALNP-EAN-T2	S-80825ALY	S-80825ALUP-EAN-T2	S-80825ALMP-EAN-T2
2.6V±2.0%	0.130	S-80826ALNP-EAP-T2	S-80826ALY	S-80826ALUP-EAP-T2	—
2.7V±2.0%	0.135	S-80827ALNP-EAQ-T2	S-80827ALY	S-80827ALUP-EAQ-T2	S-80827ALMP-EAQ-T2
2.8V±2.0%	0.140	S-80828ALNP-EAR-T2	S-80828ALY	S-80828ALUP-EAR-T2	S-80828ALMP-EAR-T2
2.9V±2.0%	0.145	S-80829ALNP-EAS-T2	S-80829ALY	S-80829ALUP-EAS-T2	—
3.0V±2.0%	0.150	S-80830ALNP-EAT-T2	S-80830ALY	S-80830ALUP-EAT-T2	S-80830ALMP-EAT-T2
3.1V±2.0%	0.155	S-80831ALNP-EAV-T2	S-80831ALY	S-80831ALUP-EAV-T2	—
3.2V±2.0%	0.160	S-80832ALNP-EAW-T2	S-80832ALY	S-80832ALUP-EAW-T2	S-80832ALMP-EAW-T2
3.3V±2.0%	0.165	S-80833ALNP-EAX-T2	S-80833ALY	S-80833ALUP-EAX-T2	S-80833ALMP-EAX-T2
3.4V±2.0%	0.170	S-80834ALNP-EAY-T2	S-80834ALY	S-80834ALUP-EAY-T2	—
3.5V±2.0%	0.175	S-80835ALNP-EAZ-T2	S-80835ALY	S-80835ALUP-EAZ-T2	S-80835ALMP-EAZ-T2
3.6V±2.0%	0.180	S-80836ALNP-EA0-T2	S-80836ALY	S-80836ALUP-EA0-T2	—
3.7V±2.0%	0.185	S-80837ALNP-EA1-T2	S-80837ALY	S-80837ALUP-EA1-T2	—
3.8V±2.0%	0.190	S-80838ALNP-EA2-T2	S-80838ALY	S-80838ALUP-EA2-T2	—
3.9V±2.0%	0.195	S-80839ALNP-EA3-T2	S-80839ALY	S-80839ALUP-EA3-T2	—
4.0V±2.0%	0.200	S-80840ALNP-EA4-T2	S-80840ALY	S-80840ALUP-EA4-T2	S-80840ALMP-EA4-T2
4.1V±2.0%	0.205	S-80841ALNP-EA5-T2	S-80841ALY	S-80841ALUP-EA5-T2	—
4.2V±2.0%	0.210	S-80842ALNP-EA6-T2	S-80842ALY	S-80842ALUP-EA6-T2	S-80842ALMP-EA6-T2
4.3V±2.0%	0.215	S-80843ALNP-EA7-T2	S-80843ALY	S-80843ALUP-EA7-T2	—
4.4V±2.0%	0.220	S-80844ALNP-EA8-T2	S-80844ALY	S-80844ALUP-EA8-T2	—
4.5V±2.0%	0.225	S-80845ALNP-EA9-T2	S-80845ALY	S-80845ALUP-EA9-T2	S-80845ALMP-EA9-T2
4.6V±2.0%	0.230	S-80846ALNP-EEA-T2	S-80846ALY	S-80846ALUP-EEA-T2	—
4.7V±2.0%	0.235	S-80847ALNP-EEB-T2	S-80847ALY	S-80847ALUP-EEB-T2	—
4.8V±2.0%	0.240	S-80848ALNP-EEC-T2	S-80848ALY	S-80848ALUP-EEC-T2	—
4.9V±2.0%	0.245	S-80849ALNP-EED-T2	S-80849ALY	S-80849ALUP-EED-T2	S-80849ALMP-EED-T2
5.0V±2.0%	0.250	S-80850ALNP-EEE-T2	S-80850ALY	S-80850ALUP-EEE-T2	S-80850ALMP-EEE-T2
5.1V±2.0%	0.255	S-80851ALNP-EEF-T2	S-80851ALY	S-80851ALUP-EEF-T2	S-80851ALMP-EEF-T2
5.2V±2.0%	0.260	S-80852ALNP-EEG-T2	—	S-80852ALUP-EEG-T2	S-80852ALMP-EEG-T2
5.3V±2.0%	0.265	S-80853ALNP-EEH-T2	—	—	—
5.4V±2.0%	0.270	S-80854ALNP-EEJ-T2	—	—	—
5.5V±2.0%	0.275	S-80855ALNP-EEK-T2	—	S-80855ALUP-EEK-T2	—
5.6V±2.0%	0.280	S-80856ALNP-EEL-T2	—	—	—
5.7V±2.0%	0.285	S-80857ALNP-EEM-T2	—	—	—
5.8V±2.0%	0.290	S-80858ALNP-EEN-T2	—	—	—
5.9V±2.0%	0.295	S-80859ALNP-EEP-T2	—	—	—
6.0V±2.0%	0.300	S-80860ALNP-EEQ-T2	—	—	—

Remark: Some products described here in are under development. Please contact us for Samples.

**SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR**  
**S-808 Series**

■ **Electrical Characteristics**

1. Detection voltage (0.8 V to 1.4 V)

(Unless otherwise specified: Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Test circuit	
Detection voltage	-V <sub>DET</sub>	S-80808AX	0.784	0.800	0.816	V	1	
		S-80809AX	0.882	0.900	0.918			
		S-80810AX	0.980	1.000	1.020			
		S-80811AX	1.078	1.100	1.122			
		S-80812AX	1.176	1.200	1.224			
		S-80813AX	1.274	1.300	1.326			
		S-80814AX	1.372	1.400	1.428			
Release voltage	+V <sub>DET</sub>	S-80808AX	0.802	0.834	0.867	V	1	
		S-80809AX	0.910	0.944	0.979			
		S-80810AX	1.017	1.054	1.091			
		S-80811AX	1.125	1.164	1.203			
		S-80812AX	1.232	1.273	1.315			
		S-80813AX	1.340	1.383	1.427			
		S-80814AX	1.448	1.493	1.538			
Hysteresis width	V <sub>HYS</sub>	S-80808AX	0.018	0.034	0.051	V	1	
		S-80809AX	0.028	0.044	0.061			
		S-80810AX	0.037	0.054	0.071			
		S-80811AX	0.047	0.064	0.081			
		S-80812AX	0.056	0.073	0.091			
		S-80813AX	0.066	0.083	0.101			
		S-80814AX	0.076	0.093	0.110			
Current consumption	I <sub>SS</sub>	V <sub>DD</sub> =1.5V	S-80808AX	—	1.3	3.7	μA	2
			S-80809AX					
			S-80810AX					
		V <sub>DD</sub> =2.0V	S-80811AX					
			S-80812AX					
			S-80813AX					
			S-80814AX					
Operating voltage	V <sub>DD</sub>		0.7	—	5.0	V	1	
Output current	I <sub>OUT</sub>	Nch	V <sub>DS</sub> =0.5V	0.04	0.2	—	mA	3
			V <sub>DD</sub> =0.7V					
		Pch(CMOS output)	V <sub>DS</sub> =2.1V	2.9	5.8	—		4
			V <sub>DD</sub> =4.5V					
Leakage current of output transistor	I <sub>LEAK</sub>	Nch(Nch open drain)	V <sub>DS</sub> =5.0V	—	—	60	nA	3
Temperature characteristic of -V <sub>DET</sub>	Δ-V <sub>DET</sub> ΔTa	Ta=-20°C to +70°C	S-80808AX	—	±0.18	—	mV/°C	1
			S-80809AX	—	±0.20	—		
			S-80810AX	—	±0.22	—		
			S-80811AX	—	±0.24	—		
			S-80812AX	—	±0.27	—		
			S-80813AX	—	±0.29	—		
			S-80814AX	—	±0.31	—		

# SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR

## S-808 Series

### 2. Detection voltage (1.5 V to 2.6 V)

(Unless otherwise specified: Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Test circuit	
Detection voltage	-V <sub>DET</sub>	S-80815AX	1.470	1.500	1.530	V	1	
		S-80816AX	1.568	1.600	1.632			
		S-80817AX	1.666	1.700	1.734			
		S-80818AX	1.764	1.800	1.836			
		S-80819AX	1.862	1.900	1.938			
		S-80820AX	1.960	2.000	2.040			
		S-80821AX	2.058	2.100	2.142			
		S-80822AX	2.156	2.200	2.244			
		S-80823AX	2.254	2.300	2.346			
		S-80824AX	2.352	2.400	2.448			
		S-80825AX	2.450	2.500	2.550			
S-80826AX	2.548	2.600	2.652					
Hysteresis width	V <sub>HYS</sub>		-V <sub>DET</sub> ×0.03	-V <sub>DET</sub> ×0.05	-V <sub>DET</sub> ×0.08	V	1	
Current consumption	I <sub>SS</sub>	V <sub>DD</sub> =3.5V	—	0.8	2.4	μA	2	
Operating voltage	V <sub>DD</sub>		0.95	—	10.0	V	1	
Output current	I <sub>OUT</sub>	Nch V <sub>DS</sub> =0.5V V <sub>DD</sub> =1.2V	0.23	0.50	—	mA	3	
		Pch(CMOS output) V <sub>DS</sub> =0.5V V <sub>DD</sub> =4.8V	0.36	0.62	—		4	
Leakage current of output transistor	I <sub>LEAK</sub>	Nch(Nch open drain) V <sub>DS</sub> =10.0 V V <sub>DD</sub> =10.0 V	—	—	0.1	μA	3	
Response time	t <sub>PLH</sub>		—	—	60	μs	1	
Temperature characteristic of -V <sub>DET</sub>	Δ-V <sub>DET</sub> ΔT <sub>a</sub>	Ta=-40°C to +85°C	S-80815AX	—	±0.18	±0.54	mV/°C	1
			S-80816AX	—	±0.19	±0.57		
			S-80817AX	—	±0.20	±0.60		
			S-80818AX	—	±0.21	±0.63		
			S-80819AX	—	±0.22	±0.66		
			S-80820AX	—	±0.24	±0.72		
			S-80821AX	—	±0.25	±0.75		
			S-80822AX	—	±0.26	±0.78		
			S-80823AX	—	±0.27	±0.81		
			S-80824AX	—	±0.28	±0.84		
			S-80825AX	—	±0.29	±0.87		
S-80826AX	—	±0.31	±0.93					

**SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR**  
**S-808 Series**

3. Detection voltage (2.7 V to 3.9 V)

(Unless otherwise specified: Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Test circuit	
Detection voltage	-V <sub>DET</sub>	S-80827AX	2.646	2.700	2.754	V	1	
		S-80828AX	2.744	2.800	2.856			
		S-80829AX	2.842	2.900	2.958			
		S-80830AX	2.940	3.000	3.060			
		S-80831AX	3.038	3.100	3.162			
		S-80832AX	3.136	3.200	3.264			
		S-80833AX	3.234	3.300	3.366			
		S-80834AX	3.332	3.400	3.468			
		S-80835AX	3.430	3.500	3.570			
		S-80836AX	3.528	3.600	3.672			
		S-80837AX	3.626	3.700	3.774			
		S-80838AX	3.724	3.800	3.876			
S-80839AX	3.822	3.900	3.978					
Hysteresis width	V <sub>HYS</sub>		-V <sub>DET</sub> 0.03	-V <sub>DET</sub> ×0.05	-V <sub>DET</sub> ×0.08	V	1	
Current consumption	I <sub>SS</sub>	V <sub>DD</sub> =4.5V	—	0.9	2.7	μA	2	
Operating voltage	V <sub>DD</sub>		0.95	—	10.0	V	1	
Output current	I <sub>OUT</sub>	Nch	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	—		
		Pch(CMOS output)	V <sub>DD</sub> =4.8V	0.36	0.62	—		4
Leakage current of output transistor	I <sub>LEAK</sub>	Nch(Nch open drain)	V <sub>DS</sub> =10.0 V V <sub>DD</sub> =10.0 V	—	—	0.1	μA	3
Response time	tPLH		—	—	60	μs	1	
Temperature characteristic of -V <sub>DET</sub>	$\frac{\Delta -V_{DET}}{\Delta T_a}$	Ta=-40°C to +85°C	S-80827AX	—	±0.32	±0.96	mV/°C	1
			S-80828AX	—	±0.33	±0.99		
			S-80829AX	—	±0.34	±1.02		
			S-80830AX	—	±0.35	±1.05		
			S-80831AX	—	±0.36	±1.08		
			S-80832AX	—	±0.38	±1.14		
			S-80833AX	—	±0.39	±1.17		
			S-80834AX	—	±0.40	±1.20		
			S-80835AX	—	±0.41	±1.23		
			S-80836AX	—	±0.42	±1.26		
			S-80837AX	—	±0.44	±1.32		
			S-80838AX	—	±0.45	±1.35		
S-80839AX	—	±0.46	±1.38					

# SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR

## S-808 Series

### 4. Detection voltage (4.0 V to 5.6 V)

(Unless otherwise specified: Ta=25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Test circuit	
Detection voltage	-V <sub>DET</sub>	S-80840AX	3.920	4.000	4.080	V	1	
		S-80841AX	4.018	4.100	4.182			
		S-80842AX	4.116	4.200	4.284			
		S-80843AX	4.214	4.300	4.386			
		S-80844AX	4.312	4.400	4.488			
		S-80845AX	4.410	4.500	4.590			
		S-80846AX	4.508	4.600	4.692			
		S-80847AX	4.606	4.700	4.794			
		S-80848AX	4.704	4.800	4.896			
		S-80849AX	4.802	4.900	4.998			
		S-80850AX	4.900	5.000	5.100			
		S-80851AX	4.998	5.100	5.202			
		S-80852AX	5.096	5.200	5.304			
		S-80853AX	5.194	5.300	5.406			
		S-80854AX	5.292	5.400	5.508			
S-80855AX	5.390	5.500	5.610					
S-80856AX	5.488	5.600	5.712					
Hysteresis width	V <sub>HYS</sub>		-V <sub>DET</sub> ×0.03	-V <sub>DET</sub> ×0.05	-V <sub>DET</sub> ×0.08	V	1	
Current consumption	I <sub>SS</sub>	V <sub>DD</sub> =6.0V	—	1.0	3.0	μA	2	
Operating voltage	V <sub>DD</sub>		0.95	—	10.0	V	1	
Output current	I <sub>OUT</sub>	Nch V <sub>DS</sub> =0.5V	V <sub>DD</sub> =1.2V	0.23	0.50	—	mA	3
			V <sub>DD</sub> =2.4V	1.60	3.70	—		
		Pch(CMOS output) V <sub>DS</sub> =0.5V	V <sub>DD</sub> =6.0V	0.46	0.75	—		4
Leakage current of output transistor	I <sub>LEAK</sub>	Nch(Nch open drain) V <sub>DS</sub> =10.0 V V <sub>DD</sub> =10.0 V	—	—	0.1	μA	3	
Response time	tPLH		—	—	60	μs	1	
Temperature characteristic of -V <sub>DET</sub>	$\frac{\Delta-V_{DET}}{\Delta T_a}$	Ta=-40°C to +85°C	S-80840AX	—	±0.47	±1.41	mV/°C	1
			S-80841AX	—	±0.48	±1.44		
			S-80842AX	—	±0.49	±1.47		
			S-80843AX	—	±0.51	±1.53		
			S-80844AX	—	±0.52	±1.56		
			S-80845AX	—	±0.53	±1.59		
			S-80846AX	—	±0.54	±1.62		
			S-80847AX	—	±0.55	±1.65		
			S-80848AX	—	±0.56	±1.68		
			S-80849AX	—	±0.58	±1.74		
			S-80850AX	—	±0.59	±1.77		
			S-80851AX	—	±0.60	±1.80		
			S-80852AX	—	±0.61	±1.83		
			S-80853AX	—	±0.62	±1.86		
			S-80854AX	—	±0.64	±1.92		
S-80855AX	—	±0.65	±1.95					
S-80856AX	—	±0.66	±1.98					

# SUPER-SMALL PACKAGE HIGH-PRECISION VOLTAGE DETECTOR

## S-808 Series

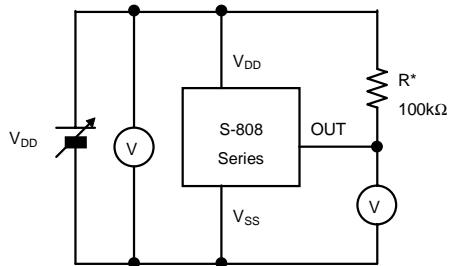
### 5. Detection voltage (5.7 V to 6.0 V)

(Unless otherwise specified:  $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	Test circuit	
Detection voltage	$-V_{\text{DET}}$	S-80857AX	5.586	5.700	5.814	V	1	
		S-80858AX	5.684	5.800	5.916			
		S-80859AX	5.782	5.900	6.018			
		S-80860AX	5.880	6.000	6.120			
Hysteresis width	$V_{\text{HYS}}$		$-V_{\text{DET}} \times 0.03$	$-V_{\text{DET}} \times 0.05$	$-V_{\text{DET}} \times 0.08$	V	1	
Current consumption	$I_{\text{SS}}$	$V_{\text{DD}}=7.5\text{V}$	—	1.0	3.0	$\mu\text{A}$	2	
Operating voltage	$V_{\text{DD}}$		0.95	—	10.0	V	1	
Output current	$I_{\text{OUT}}$	Nch $V_{\text{DS}}=0.5\text{V}$	$V_{\text{DD}}=1.2\text{V}$	0.23	0.50	—	mA	3
			$V_{\text{DD}}=2.4\text{V}$	1.60	3.70	—		
		Pch(CMOS output) $V_{\text{DS}}=0.5\text{V}$	$V_{\text{DD}}=8.4\text{V}$	0.59	0.96	—		4
Leakage current of output transistor	$I_{\text{LEAK}}$	Nch(Nch open drain) $V_{\text{DS}}=10.0\text{V}$ $V_{\text{DD}}=10.0\text{V}$	—	—	0.1	$\mu\text{A}$	3	
Response time	$t_{\text{PLH}}$		—	—	60	$\mu\text{s}$	1	
Temperature characteristic of $-V_{\text{DET}}$	$\frac{\Delta -V_{\text{DET}}}{\Delta T_a}$	$T_a=-40^\circ\text{C}$ to $+85^\circ\text{C}$	S-80857AX	—	$\pm 0.67$	$\pm 2.01$	mV/ $^\circ\text{C}$	1
			S-80858AX	—	$\pm 0.68$	$\pm 2.04$		
			S-80859AX	—	$\pm 0.69$	$\pm 2.07$		
			S-80860AX	—	$\pm 0.71$	$\pm 2.13$		

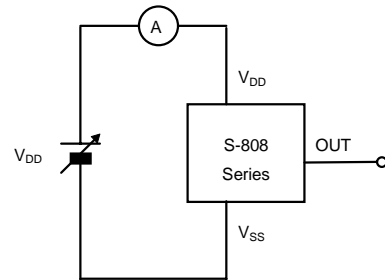
### ■ Test Circuits

(1)

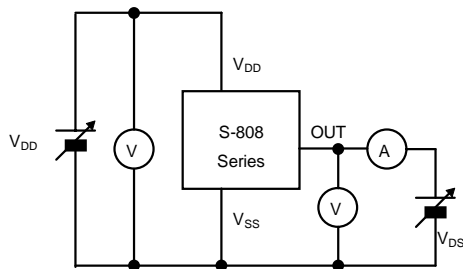


\* R is unnecessary for CMOS output products.

(2)



(3)



(4)

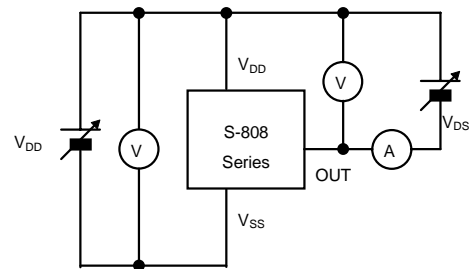


Figure 4