



DESCRIPTION

The A4812 series is a series of high-programmable precision voltage detectors developed using CMOS process.

The detection voltage is fixed internally with an accuracy of $\pm 2.0\%$. Two output forms, Nch open-drain and CMOS output, are available. Ultra-low current consumption and miniature package lineup can meet demand from the portable device applications.

The A4812 is available in SC70-5 packages.

ORDERING INFORMATION

Package Type	Part Number	
SC70-5 SPQ:3,000pcs/Reel	C5	A4812C5R
		A4812C5VR
Note	V: Halogen free Package R: Tape & Reel	
AiT provides all RoHS products		

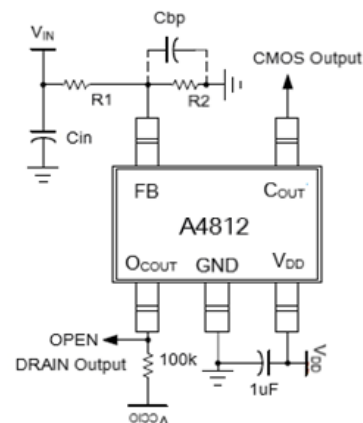
FEATURES

- High-precision detection voltage $\pm 1\%$
- Ultra-low current consumption 4.0 μA typ. ($V_{in}=3.0\text{V}$)
- Operating voltage range 0.7 V to 7.0 V
- Output form Nch open-drain output (Active Low) or CMOS output (Active Low)
- Detection voltage temperature characteristics $\pm 100\text{ppm}(\text{typ.})$

APPLICATION

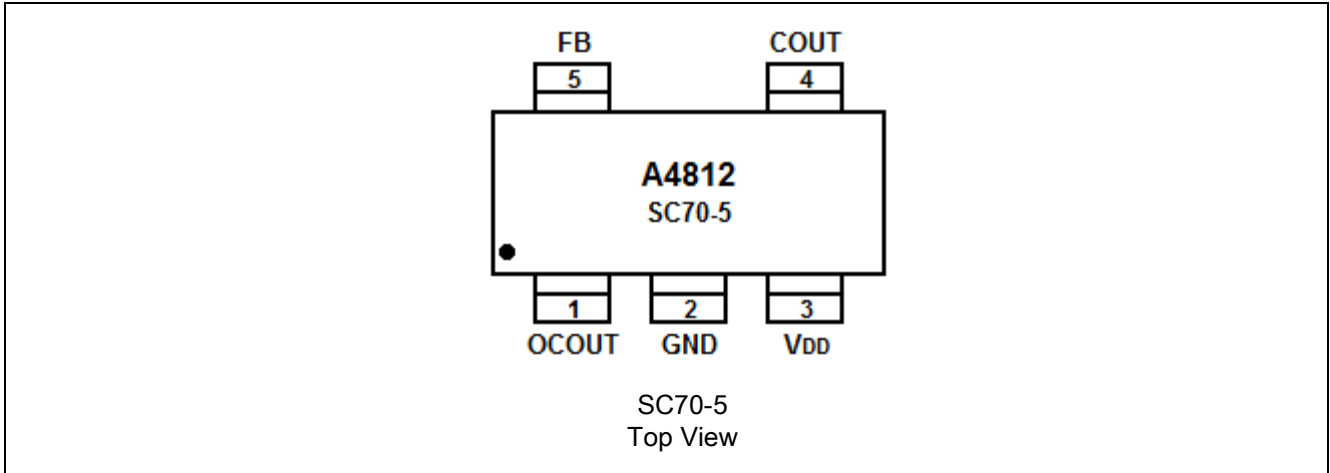
- Battery Checkers
- Power Failure Detectors
- Power Monitor for Portable equipments such as pagers, calculators, electronic notebooks and remote controllers.
- Constant voltage power monitor for cameras, video equipments and communication devices.
- Power monitor for microcomputers and reset for CPUs.

TYPICAL APPLICATION





PIN DESCRIPTION



Pin#	Symbol	Function
1	O _{COUT}	NMOS open- anti- logic output pin
2	GND	GND pin
3	V _{DD}	Power pin
4	C _{OUT}	CMOS output pin
5	FB	Feedback input pin



ABSOLUTE MAXIMUM RATINGS

V _{DD} , Power supply voltage		8V
V _{FB} , Feedback Voltage		8V
I _{out} , Output Current		50mA
V _{out} , Output Voltage	COUT	V _{SS} -0.3 ~ V _{DD} +0.3
	OCOUT	V _{SS} -0.3~8
P _d , power dissipation		150mW
T _{opr} , Operating ambient temperature		-40°C ~ 85°C
T _{STG} , Storage Temperature		-40°C ~ 125°C

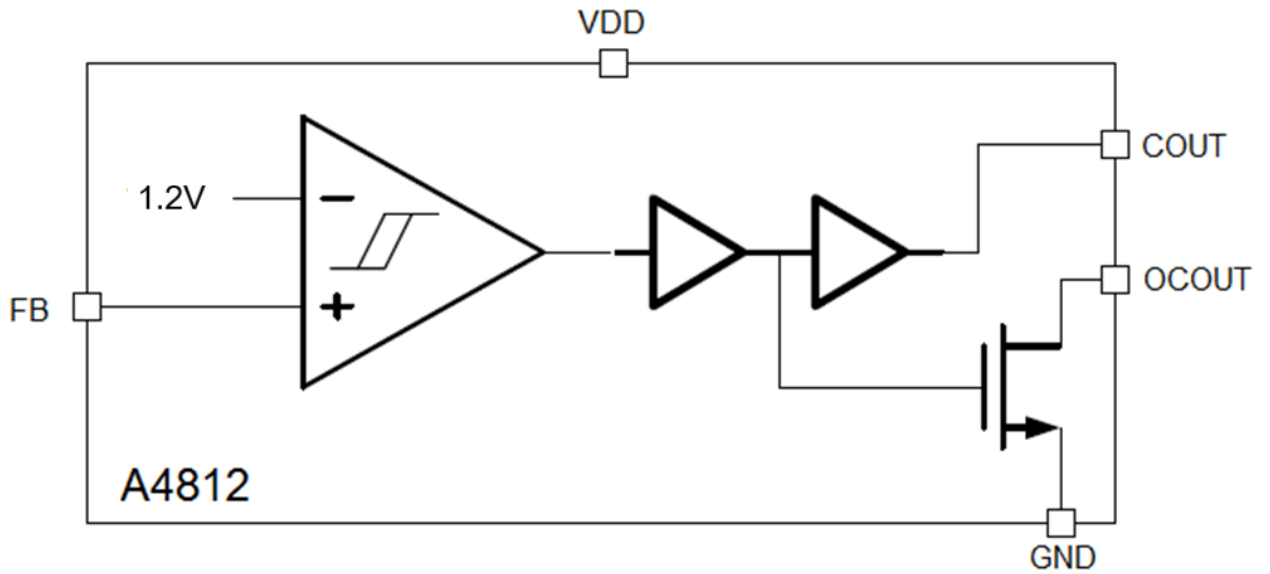
Stress beyond above listed "Absolute Maximum Ratings" may lead permanent damage to the device. These are stress ratings only and operations of the device at these or any other conditions beyond those indicated in the operational sections of the specifications are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

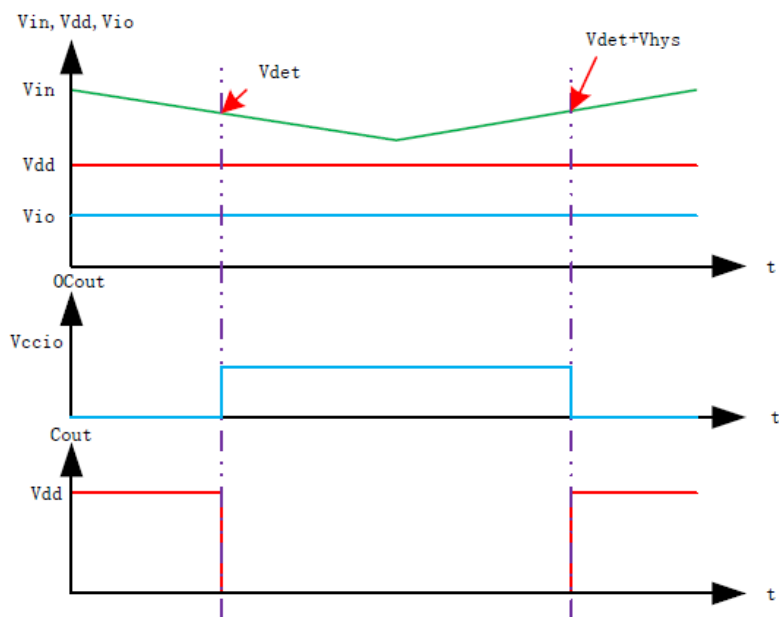
Parameter		Conditions	Min	Typ	Max	Unit	
FB	Feedback Voltage	-	1.188	1.2	1.212	V	
V _{HYS}	Release voltage	-	V _{DD} x0.02	V _{DD} x0.03	V _{DD} x0.04	V	
I _{SS}	Current consumption	V _{DD} =3.0V	1.5	3.5	4.5	uA	
V _{DD}	Power supply voltage	-	1.5	-	7	V	
I _{out}	Output current	Nch V _{ds} =0.5	V _{DD} =1.0V	1.0	2.2	-	mA
			V _{DD} =2.0V	3.0	7.7	-	
			V _{DD} =3.0V	5.0	10.1	-	
			V _{DD} =4.0V	6.0	11.5	-	
			V _{DD} =5.0V	7.0	13.0	-	
		Pch V _{DS} =2.1 V _{DD} =8.0	-	-10	-2		
Temperature coefficient		-40 ~ +85°C	-	±100	-	ppm/°C	



BLOCK DIAGRAM



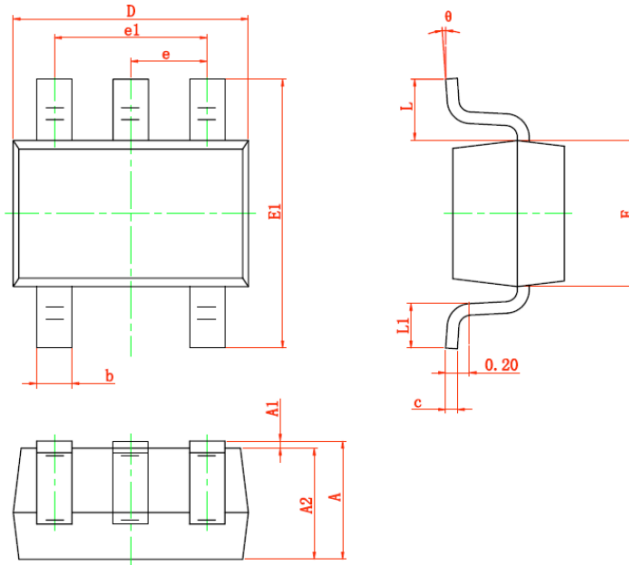
TIMING CHART





PACKAGE INFORMATION

Dimension in SC70-5 (Unit: mm)



Symbol	Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650TYP	
e1	1.200	1.400
L	0.525REF	
L1	0.260	0.460
θ	0°	8°



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