

Features

- Low power consumption
- Low temperature coefficient
- Built-in delay circuit: 200ms
- High input voltage (up to 8V)
- Output voltage accuracy: tolerance $\pm 2\%$
- SOT23 ,SOT23-3 and SOT89 package

Applications

- Microprocessor reset circuitry
- Memory battery back-up circuits
- Power on reset circuits
- System battery life and charge voltage monitors
- Delay circuitry
- Power failure detection

General Description

The JY803X series are highly accurate ,low power consumption voltage detectors,manufactured using CMOS and laser trimming technologies .A delay circuit is built-in to each detectors .Detect voltage is extremely accurate with minimal

temperature drift. N-ch open drain output configurations is available. Since the delay circuit is built-in, peripherals are unnecessary and high density mounting is possible.

Selection Table

Part No	Detectable Voltage	Delay Time	Tolerance	Package
JY803X-xxxXX	4.63V	200ms	$\pm 2\%$	SOT23 SOT23-3 SOT89
JY803X-xxxXX	4.38V		$\pm 2\%$	
JY803X-xxxXX	4.00V		$\pm 2\%$	
JY803X-xxxXX	3.08V		$\pm 2\%$	
JY803X-xxxXX	2.93V		$\pm 2\%$	
JY803X-xxxXX	2.63V		$\pm 2\%$	

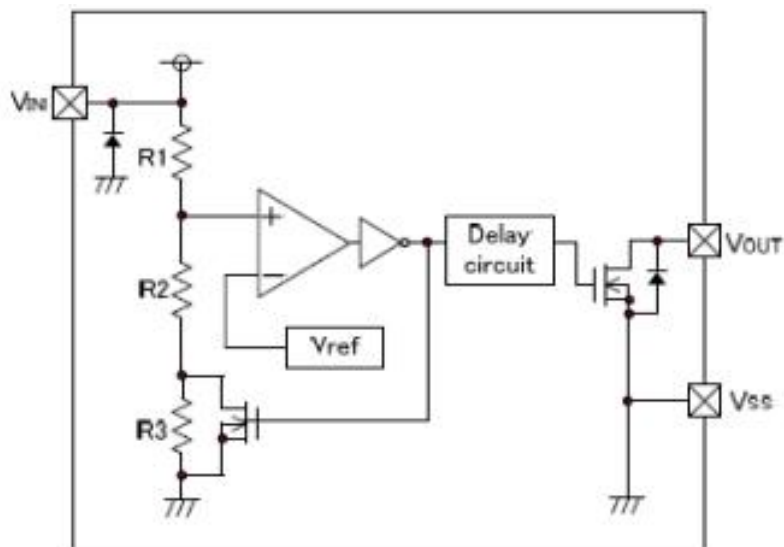
Note: "xxx" stands for detectable voltages. "XX" stands for package.

Order Information

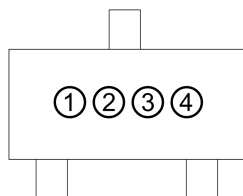
JY803X-①②③④⑤

Designator	Symbol	Description
①②③	xxx	Detect voltage
④	N	Package:SOT23
	M	Package:SOT23-3
	P	Package:SOT89
⑤	R	RoHS / Pb Free
	G	Halogen Free

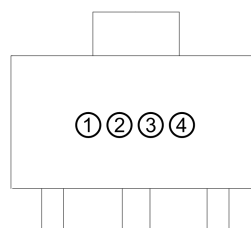
Block Diagram



Marking Rule



SOT23/SOT23-3(TOP VIEW)



SOT89 (TOP VIEW)

Product	Mark
JY803X-263	BFAA
JY803X-293	BDAA
JY803X-308	BCAA
JY803X-400	BWAA
JY803X-438	BBAA

Product Information

Product	Package	MOQ
JY803X	SOT23	3000PCS
JY803X	SOT23-3	3000PCS
JY803X	SOT89	1000PCS

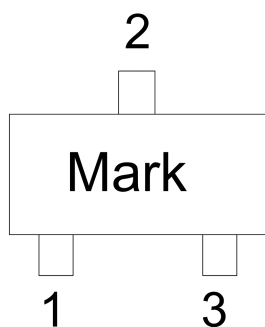
Pin Assignment
SOT23/SOT23-3(TOP VIEW)


Table1 : JY803X series (SOT23/SOT23-3 PKG)

PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VIN	Input voltage pin
3	Reset	Reset pin

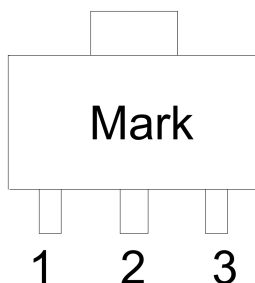
SOT89 (TOP VIEW)


Table2 : JY803X series (SOT89 PKG)

PIN NO.	PIN NAME	FUNCTION
1	GND	GND pin
2	VIN	Input voltage pin
3	Reset	Reset pin

Absolute Maximum Ratings

Input Voltage-0.3V to 8.0V Storage Temperature-40℃ to 125℃

Operating Temperature-30℃ to 80℃

Note: These are stress ratings only. Stresses exceeding the range specified under “Absolute Maximum Ratings” may cause substantial damage to the device. Functional operation of this device at other conditions beyond those listed in the specification is not implied and prolonged exposure to extreme conditions may affect device reliability.

Thermal Information

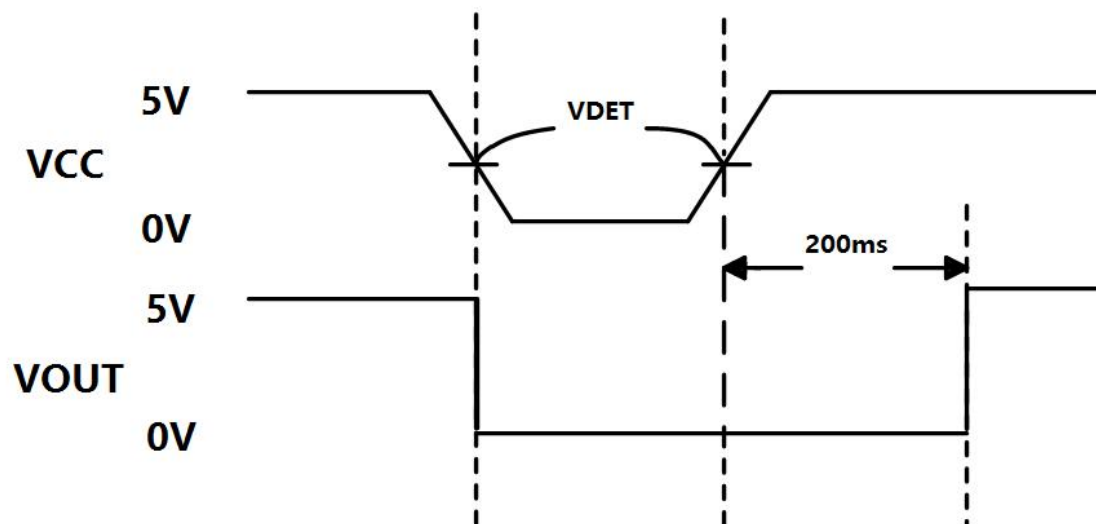
Symbol	Parameter	Package	Max.	Unit
θ_{JA}	Thermal Resistance (Junction to Ambient) (Assume no ambient airflow, no heat sink)	SOT23-3	250	℃/W
		SOT89	500	℃/W
P_D	Power Dissipation	SOT23-3	0.20	W
		SOT89	0.50	W

Note: P_D is measured at $T_a = 25^\circ\text{C}$

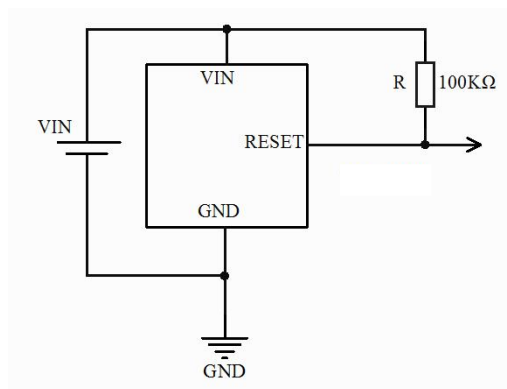
Electrical Characteristics

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_{CC}	Input Voltage (V_{CC}) Range	25°C	1.2		7.5	V
I_{SS}	Supply Current	$V_{IN}=6V$, $V_{DET}=2.63V$	1	1.8	2.5	μA
V_{DET}	Reset Threshold	TA=25°C	4.56	4.63	4.70	V
		TA=25°C	4.31	4.38	4.45	
		TA=25°C	3.93	4.00	4.06	
		TA=25°C	3.04	3.08	3.11	
		TA=25°C	2.89	2.93	2.96	
		TA=25°C	2.59	2.63	2.66	
	Reset Threshold Stability			30		Ppm/°C
	V_{CC} to Reset Delay	$V_{CC}=V_{TH}$ to $V_{TH}-100mV$		20		us
V_{OL}	Reset Active Timeout Period		100	200	300	ms

Timing Chart

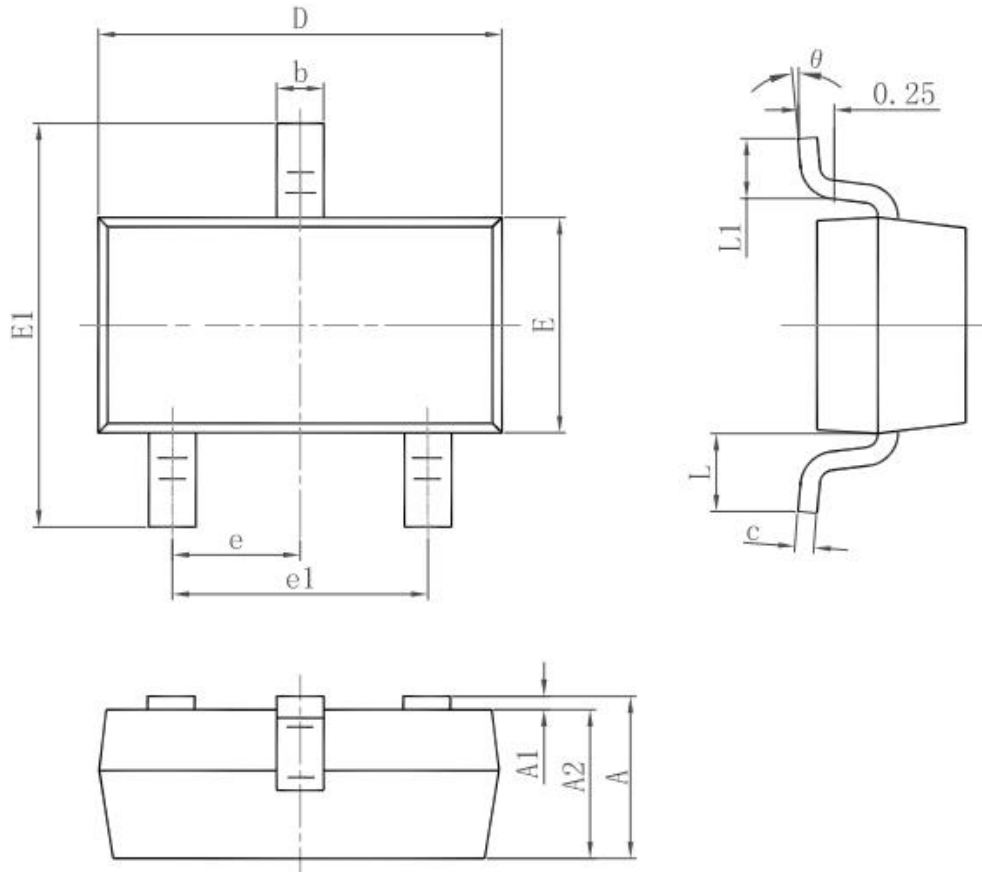


Application Circuits

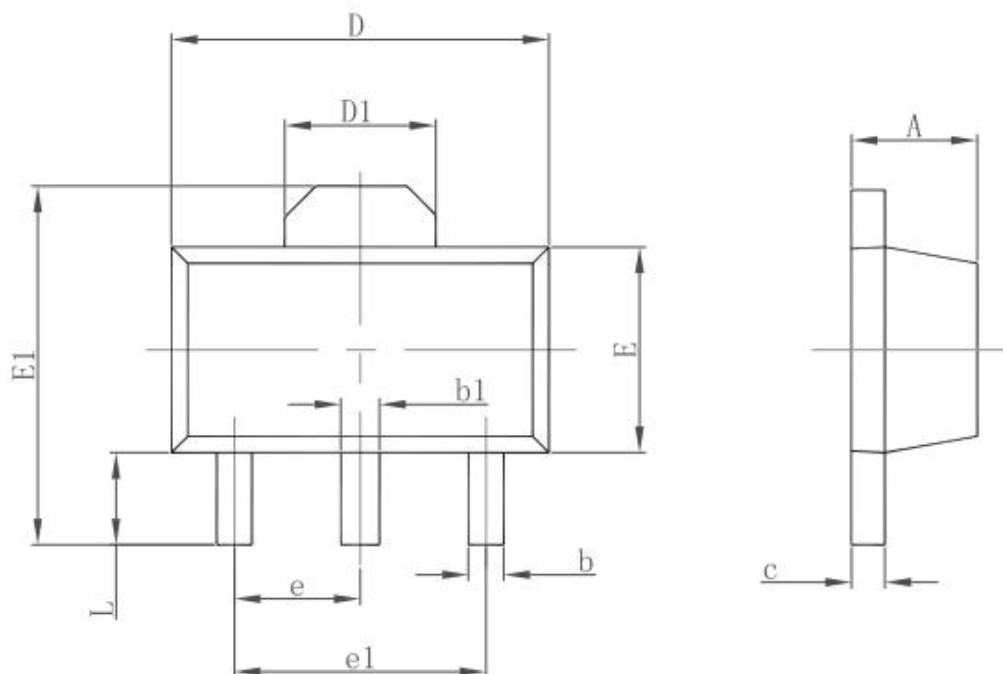




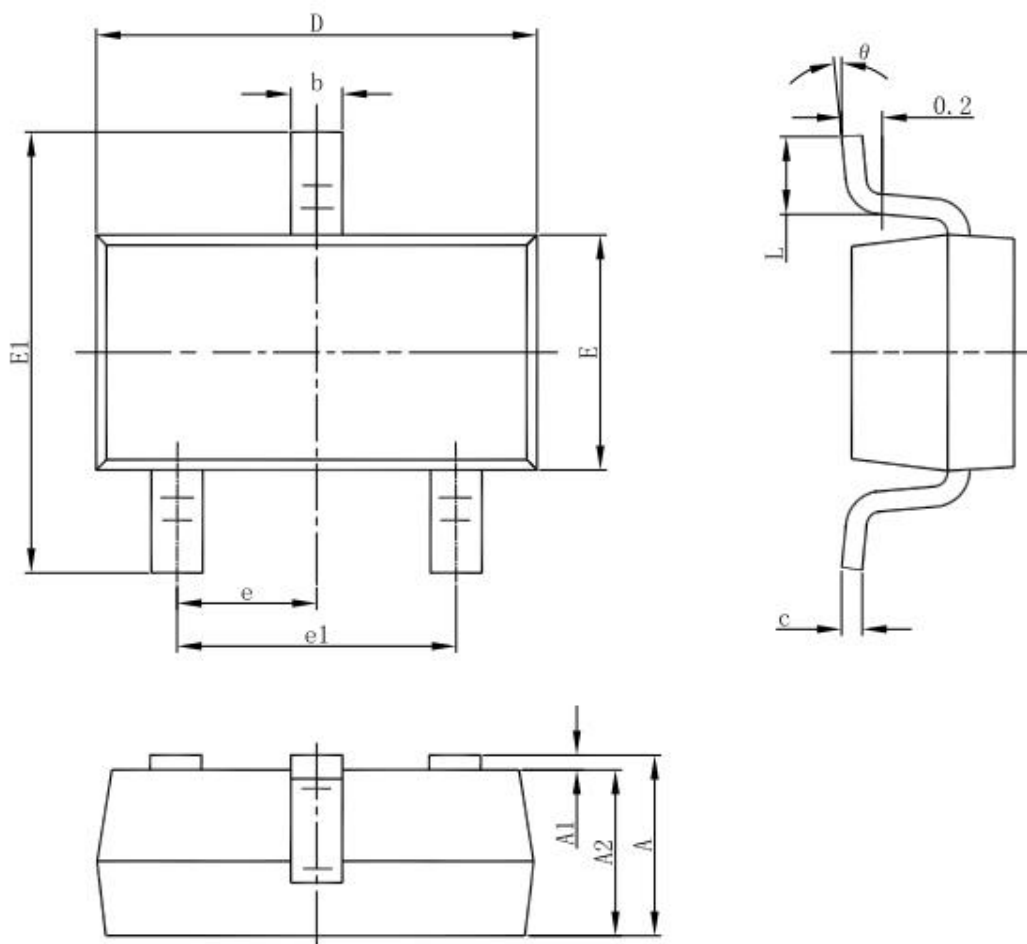
Package Information 3-pin SOT23 Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

3-pin SOT89 Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

3-pin SOT23-3 Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E	1.500	1.700	0.059	0.067
E1	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°