M62022L,FP

VOLTAGE DETECTING,SYSTEM RESETTING IC

DESCRIPTION

The M62022 is a semiconductor integrated circuit resets logic circuits according to supply voltage.It is used with many types of circuits,including central processing units.

With the built-in delay circuit,delay time can be adjusted at the user's option by externally adding capacitance.

This circuit can also be used in other applications,such as battery check,level detection and waveform shaping.

FEATURES

•Requires only a few external components.
•Ensures long delay time at low capacitance.
e.g.Delay time is 100ms at 0.33µF.
•Limit operating voltage*is low.
0.6V standard(Resistance R_L=22kΩ)
(*Minimum supply voltage at which output can be kept low.)
•Wide supply voltage range.....2~17V
•Highly resistant to rapid voltage fluctuation
•Wide application range
•5-pin single in-line package equivalent in height to dual in-line package

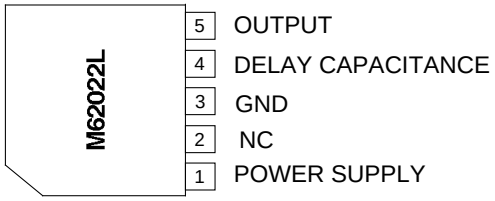
APPLICATION

Reset circuit in p-channel metal-oxide semiconductors,n-channel metal-oxide semiconductors,complementary metal-oxide semiconductors,microcomputers,central processing units,microcomputer units and other logic circuits,Battery check circuit,Backup power selection circuit;Level detection circuit,Waveform shaping circuit, Delay waveform generation circuit,DC-DC converter,and Overvoltage protection circuit.

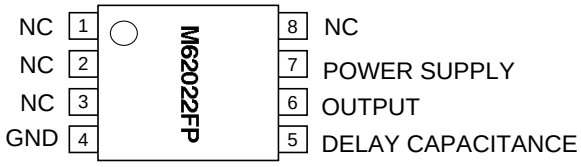
RECOMMENDED OPERATING VOLTAGE

Supply voltage range.....2~17V

PIN CONFIGURATION (TOP VIEW)



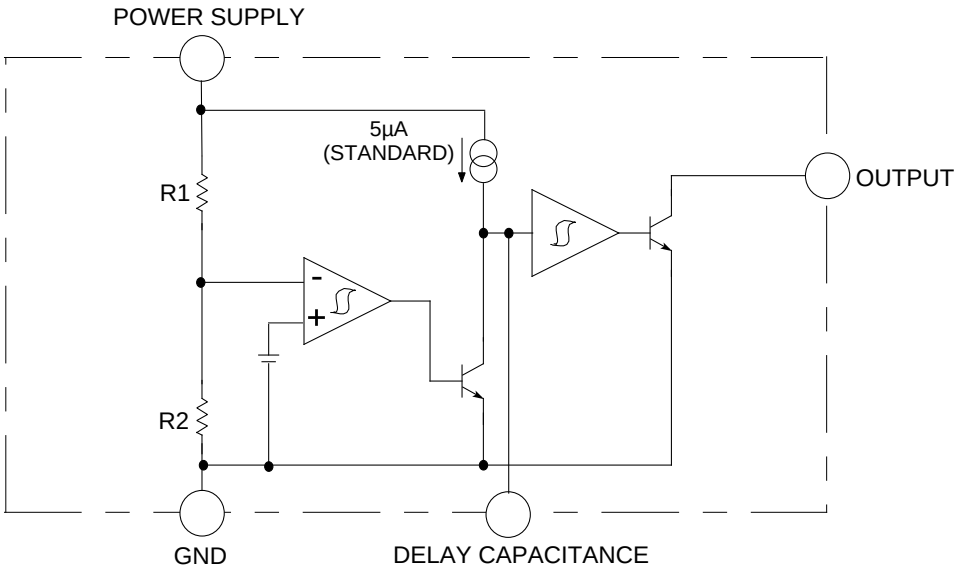
Outline 5P5T



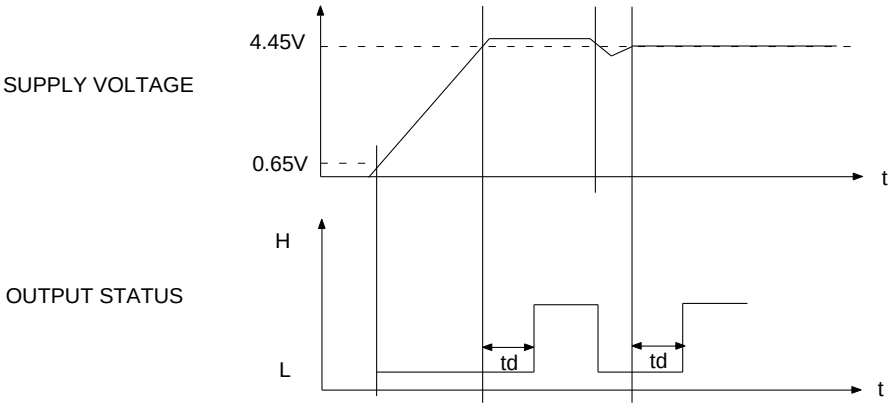
Outline 8P2S-A

NC:NO CONNECTION

BLOCK DIAGRAM



OPERATION WAVEFORM



OUTPUT UNSETTLED

td≈ 0.34XCd(pF)μsec

ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		18	V
I_{SINK}	Output sink current		6	mA
Vo	Output voltage		18	V
Pd	Power dissipation		450(SIP)/300(FP)	mW
K_Θ	Thermal derating	(Ta≥25°C)	4.5(SIP)/3.0(FP)	mW/°C
T_{opr}	Operating temperature		-30 ~ +85	°C
T_{stg}	Storage temperature		-40 ~ +125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise noted)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
Vs	Detection voltage		4.30	4.45	4.60	V
ΔVs	Hysteresis voltage		30	50	80	mV
Vs/ΔT	Coefficient of detection voltage to temperature			0.01		%/°C
I_{CC}	Circuit current	V_{CC}=5V		420	630	μA
tpd	Delay time	Ta=-30~+85°C Cd=0.01μF(Note)	1.6	3.4	7.0	ms
Ipd	Delay current		-8	-5	-3	μA
Vsat	Output saturation voltage	V_{CC}=5V Isink=4mA		0.2	0.4	V
V_{OPL}	Limit operating voltage	RL=2.2kΩ Vsat≤0.4V		0.67	0.80	V
		RL=100kΩ Vsat≤0.4V		0.55	0.70	
I_{OH}	Output leak current				30	nA
		Ta=-30~+85°C			1	μA

Note.Delay time can be varied by changing the capacitance.