

VOLTAGE SUPERVISOR WITH DELAY TIME CONTROL IC. [1.25V ± 50mV]

Function of this IC is accurately resetting the system after detecting voltage with delay time control application at the time of switching power on and instantaneous power on and instantaneous power off in various CPU systems and other logic systems.

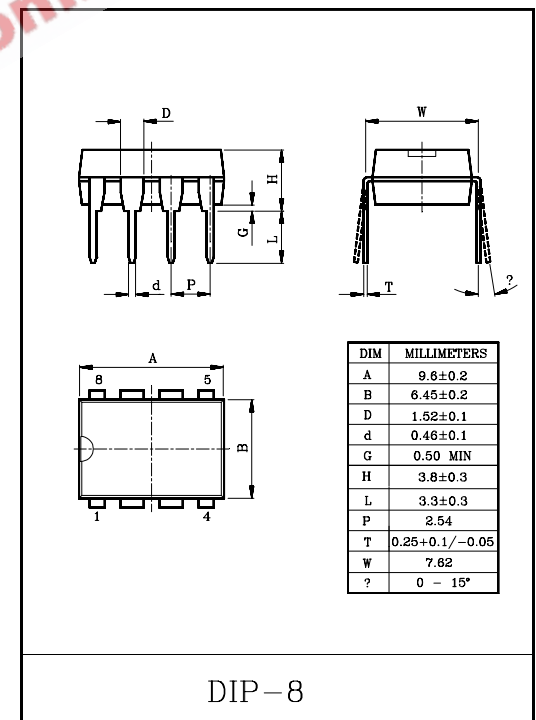
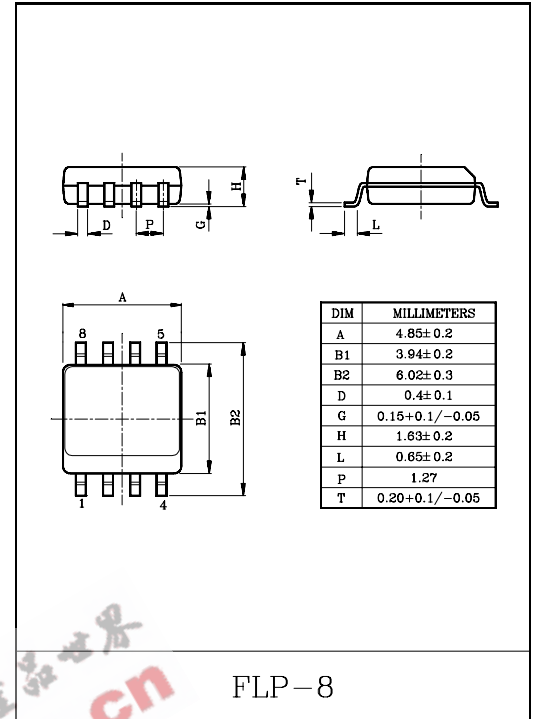
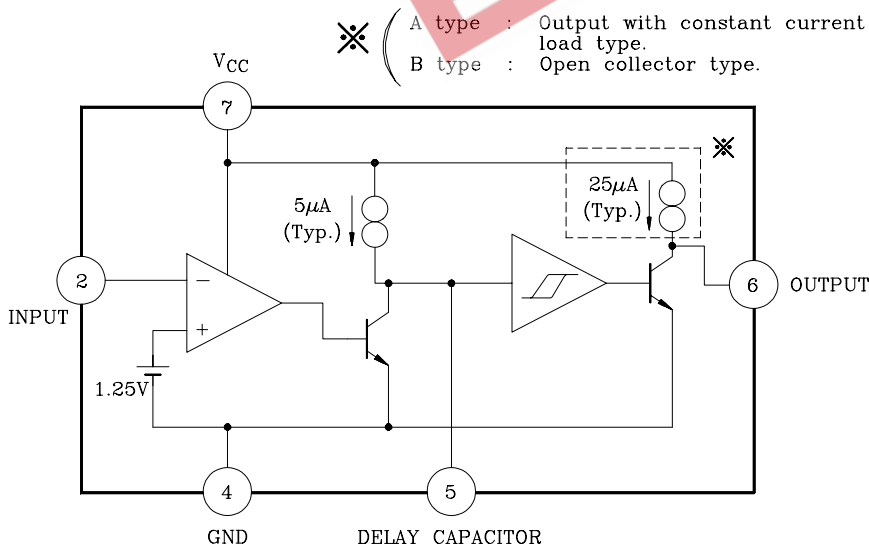
FEATURES

- Few External Components.
- Current Consumption is Low ; ($I_{CCH}=360\mu A$ Typ.).
- Resetting Output Minimum Guarantee Voltage is Low ; (0.6V Typ.).
- Large Delay Time Can Generate Only by Adding a Small Capacitor (at $0.33\mu F$, $t_d \approx 100mS$).
- Wide Operating Supply Voltage Range : ($V_{CC}=2\sim 17V$).
- Hysteresis Voltage is Provided ; (15mV Typ.).
- Reset Signal Generation Sensing Voltage ; ($1.25V \pm 50mV$).

APPLICATIONS

- As System Control Circuit Against Erroneous Operations at Power ON-OFF.
- As Control Circuit of Battery-Backed Memory, Battery Indicator, Level Detector, Waveform Shapper, Delayed Waveform Generator, DC-DC Converter, Over Voltage Protector, and So forth.
- As Resetting Function for the CPU, MCU, P_{CH} , N_{CH} , CMOS and Logic.

EQUIVALENT CIRCUIT



KIA7125P/PV/F/FV

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

CHARACTERISTIC		SYMBOL	CONDITION	RATING	UNIT
Supply Voltage		V _{CC}	-	18	V
Output Sink Current		I _{Sink}	-	6	mA
Output Voltage		V _O	A type (output with constant current load.) B type (open collector type.)	V _{CC} 18	V
Power Dissipation	F/FV	P _D	-	240	mW
	P/PV			500	
Operating Temperature		T _{opr}	-	-40~85	°C
Storage Temperature		T _{stg}	-	-55~125	°C

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Detecting Voltage	V _S	-	1.20	1.25	1.30	V
Hysteresis Voltage	ΔV _S	V _{CC} =5V	9	15	23	mV
Detecting Voltage Temperature Coefficient	V _S / ΔT		-	0.01	-	%/°C
Supply Voltage Range	V _{CC}	Ta=-40~+85°C	2	-	17	V
Input Voltage Range	V _{IN}	Ta=-40~+85°C, V _{CC} ≤7V	-0.3	-	V _{CC}	V
		Ta=-40~+85°C, V _{CC} >7V	-0.3	-	7	
Input Current	I _{IN}	V _{IN} =1.25V	-	100	500	nA
Circuit Current at Off Time	I _{CCH}	Type A : V _{CC} =5V, V _{IN} =1.5V	-	390	590	μA
		Type B : V _{CC} =5V, V _{IN} =1.5V	-	360	540	
Circuit Current at On Time	I _{CCL}	Type A : V _{CC} =5V, V _{IN} =1.2V	-	390	590	μA
		Type B : V _{CC} =5V, V _{IN} =1.2V	-	360	540	
Delay Time	t _{pd}	Ta=-40~+85°C cd=0.01μF (Note)	1.6	3.4	7	mS
Constant Current at cd Pin	I _{pd}	V _{CC} =5V	-8	-5	-3	μA
Low Level Output Voltage	V _{OL}	V _{CC} =5V, V _{IN} <1.2V, I _{sink} =4mA	-	0.2	0.4	V
Threshold Operating Voltage	V _{opr}	R _L =2.2kΩ, V _{opr} ≤0.4V	-	0.67	0.8	V
		R _L =100kΩ, V _{opr} ≤0.4V	-	0.55	0.7	
Output Leakage Current	I _{OH}	V _O =5V	-	-	30	nA
		Ta=-40~+85°C	-	-	1	μA

※ Note) Delay time can be changed by changing delay capacitor for external delay capacitor types.